



Milesight NVR

User Manual



More in Sight

Installation Notes

Please be advised of the following tips before using your NVR:

- Keep all liquids away from the NVR.
- Place the NVR in a well-ventilated environment.
- Ensure NVR is running within the allowed humidity and operating temperature.
- It will lead to shorting when dust on the circuit board of NVR gets damp; please dedust regularly with banister brush regarding the circuit board, connector, chassis and chassis fan.
- Improper replacement of the battery may result in hazard of explosion. Direct replacement conducted by users is prohibited. Replace with the same or equivalent type only.

Note

- The equipment mainly mentioned in this manual is MS-N1000/MS-N5000/MS-N8000 Series NVR, including MS-N1004/MS-N1008/MS-N5008/MS-N5016/MS-N8016.

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1.Product Introduction

1.1 Introduction

Milesight NVR Series are positioned at management and storage application of HD video data, and own multi-disc management systems, front end HD device management system, HD video analysis system and high-capacity system for video. It adopts the technology of high flow capacity data network transmitting & transmission, with multi-channel video decoding, to achieve functions like intelligent management, safe storage, HD decoding etc.

1.2 Product Key Functions

Basic Information

- Milesight NVR Series including MS-N1000/MS-N5000/MS-N8000, can work with IP camera and connect with third party IP cameras which support ONVIF.

Monitoring

- Supports HDMI video output, can live view and play back separately.
- For HD HDMI display, maximum to 1920*1080P resolution.
- Supports 1/4/8/16 screen live view, channel sequence is adjustable.
- Supports live view fast menu operating.
- Supports live view group switch, manual switch and automatic patrol, the interval of automatic sequence can be adjusted.
- Supports motion detection, video loss alert.
- Supports various PTZ protocols, PTZ preset, auto patrol and patrol pattern.
- Supports central zoom in by clicking the mouse at arbitrary area.

HDD Management

- Supports S.M.A.R.T technology.

Recording/Snapshot and Playback

- Support holiday's time.
- Support recycle and non-recycle recording mode.
- Support multiple recoding types, including timing, alarm, motion detection, motion or alarm, motion and alarm, etc.
- Support 12 recording time periods with separate recording types.
- Support pre-record and post-record time for motion detection or snapshot, alarm recording or snapshot, motion and alarm recording, motion or alarm recording. And supports pre-record for manual and timing.
- Supports local recording/snapshot.
- Supports digital zoom function at arbitrary area in playback.

- Supports video data playback.
- Supports pause, fast play, slow play, skip forward, and skip backward when playback, locating in progress bar by dragging the mouse.
- Supports snapshot manually.

Backup

- Supports USB port backup.
- Supports FAT32 format backup
- Supports backup device maintenance and management.

Alarm & Exception

- Supports video loss alarm, motion detection alarm.
- Supports various alarm response such as audible warning, send email, camera motion detecting, on/off relay

Other Functions:

- Supports multi-level user management, administrator can create multiple users with access rights.
- Supports manual triggering and clearing of alarms.
- Supports operation of configured information import/export.

Network:

- Supports unicast and multicast, support TCP, UDP, and RTP for unicast.
- Supports remote search, playback and download of video files, support breakpoint resume.
- Supports remote acquiring and configuring of parameters, support remote import and export of device parameters.
- Supports remote acquiring of device status, system log and alarm status.
- Supports remote button operation.
- Supports remote operate system maintenance by format of hard disk, upgrade, and reboot, etc.
- Supports upload alarm and exceptions to remote host.
- Supports remote manual start or stop of recording.
- Supports remote manual start or stop of alarm output.
- Supports remote BMP image capturing.
- Supports remote PTZ control
- Built-in WEB Server

Model		MS-N1004/MS-N1008	MS-N5008	MS-N5016	MS-N8016
Video/Audio Input	Network Video Input	4/8	8	16	16
	Bandwidth Requirement	20Mbps/40Mbps	40Mbps	80Mbps	80Mbps

	Audio Input	-	-	1*3.5mm	1*RCA
Video/Audio Output	HDMI Output	1	1	1	1
	VGA Output	-	-	-	1
	Audio Output	-	-	1*3.5mm	1*RCA
	Recording Resolution	1080P/UXGA/720P/VGA/D1/CIF/QCIF		3MP/1080P/UXGA/720P/VGA/D1/CIF/QCIF	
	Synchronous Playback	4/8	8	16	16
Video/Audio Compression	video Compression	H.264			
	Audio Compression	G.711 U-Law			
	Audio Bit Rate	8Kbps			
Storage	Drivers	2 SATA HDD (2.5’)	2 SATA HDD (3.5’)		8 SATA HDD (3.5’)
	External Storage	-	-	-	1 eSATA
	Capacity	Up to 2TB capacity for each HDD	Up to 4TB capacity for each HDD		
Recording Management	Recording	Manual recording, timer recording, motion detection recording, alarm recording, motion detection recording or alarm recording, motion detection recording and alarm recording			
	Snapshot	Manual Snapshot, Motion Detection Snapshot, Alarm Snapshot, Snapshot to Email			
	Playback	Video playback, Image playback			
Backup	Backup	Video backup/Image backup			
Network	Protocol	IPv4, HTTP, SNMP, NTP, SMTP, PPPoE, DDNS			
External Interface	Network Interface	2 RJ45 100M/1000M			2 RJ45 100M/1000M
	Serial Interface	-	-	-	1 RS-485 for PTZ
		-	-	-	1 RS-232 for Console
		-	-	-	1 RS-485 for Keyboard
	USB Interface	2 USB 2.0			4 USB 2.0
	Alarm Input	-	-	4	16
	Alarm Output	-	-	2	4
	Power Supply	DC12V 1.5A	DC12V 5A		AC 100-240V 47Hz-63Hz

2. Hardware

2.1 Panel Buttons and Lights Instructions

(1) MS-N1000 Series: MS-N1004/MS-N1008

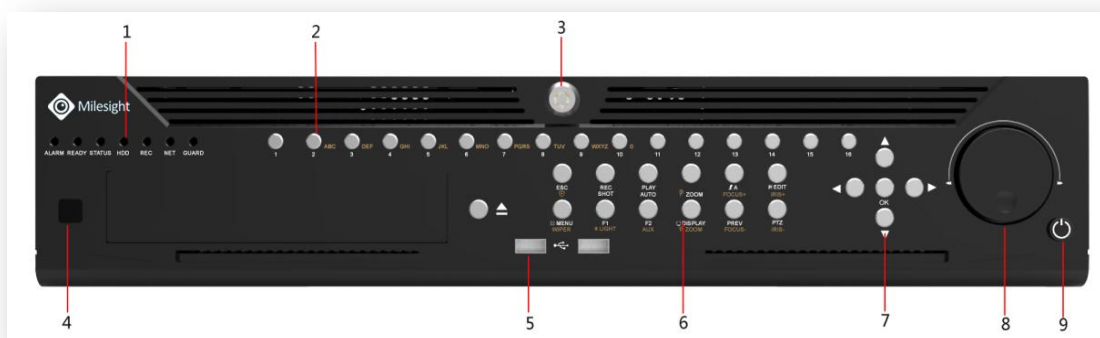


(2) MS-N5000 Series: MS-N5008/MS-N5016



NO.	Item	Description
1	POWER	Powers NVR on/off.
2	USB Ports	USB ports for additional devices such as USB mouse, USB flash drive and USB HDD.
3	IR Receiver	Receiver for IR signal.

(3) MS-N8000 Series: MS-N8016



1	Alarm	Alarms indicator turns red when switching value is detected.
	Ready	Ready indicator turns red in process of boot; indicator turns green when NVR is in normal operation.
	Status	Status indicator turns green when NVR is controlled by a remote controller, indicator turns red when controlled by a keyboard and turns orange when remote controller and keyboard are used at the same time.
	HDD	HDD indicator turns red when data is being read or written.
	Recording	Recording indicator turns red when NVR is being recorded.
	Network	Network indicator turns to green when network connection is normal.
	Guard	Guard indicator turns green when the device is armed, turns off when the device is unarmed. The arm/disarm state can be switch by pressing and holding on ESC button for more than 3 seconds.
2	Alphanumeric Buttons	(1)Alphanumeric buttons are used to switch the corresponding channel in live view or PTZ Control mode. (2)Alphanumeric buttons are used to input numbers and characters in edit mode.
3	Control Panel Locker	Control panel can be locked or unlocked by the dedicated key.
4	IR Receiver	Receiver for IR signal.
5	USB Ports	USB ports for additional devices such as USB mouse, USB flash drive and USB HDD.
6	ESC	(1) ESC button is used to return to previous menu

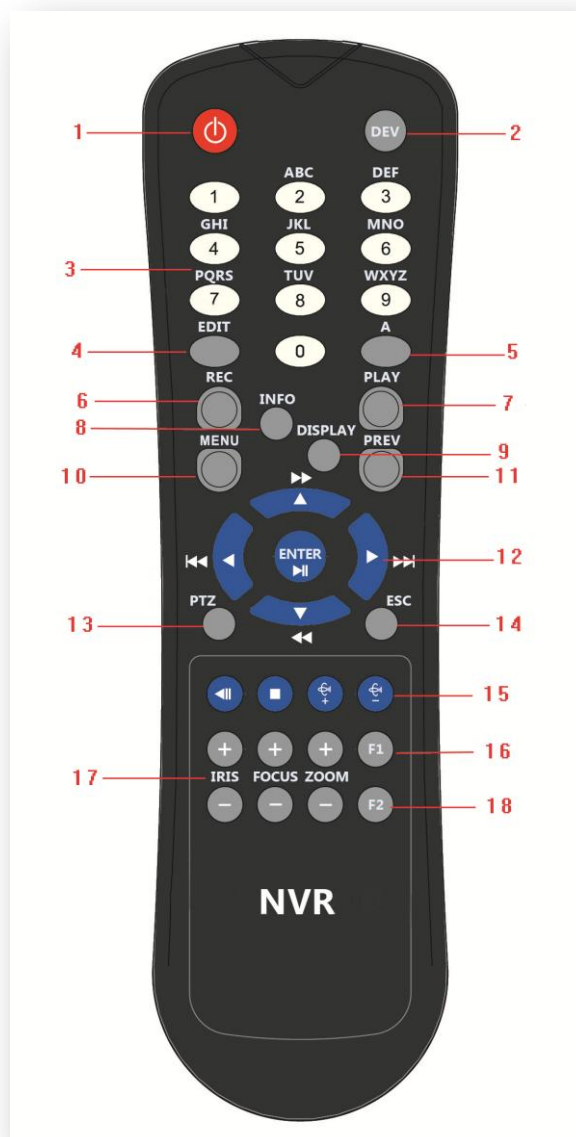
		(2) To disarm the NVR by pressing and holding more than 3 seconds in live view mode.
	REC/SHOT	(1) The REC/SHOT button is used to enter recording configuration interface. (2) When controlling a PTZ, press the REC/SHOT Button to invoke preset positions. (3) Open and close sound system when playback.
	PLAY BACK/AUTO	(1) Enter the playback interface. (2) Auto scan when in PTZ control.
	ZOOM	Zoom control when in PTZ control.
	A/focus+	(1) Switch the input methods including figure, letters and symbols. (2) Auto scan when in PTZ control.
	EDIT/IRIS+	(1) Used to enter the edit state. (2) Delete the character in front of the cursor. (3) Open up the IRIS of the camera when in PTZ state.
	MENU	(1) Enter the main menu interface. (2) Display/cover playback toolbar when in playback state. (3) Open/close the sound of front panel by pressing and holding more than 3 seconds.
	F1/Light	(1) Select all items on the list. (2) Control light status when in PTZ control. (3) Switch to playback or sequence play in playback state.
	F2/AUX	The F2/AUX button is used to switch menu attribute page.
	MAIN/SPOT/ZOOM-	(1) Switch between main and spot output. (2) To zoom the camera in PTZ mode.
	Multi-frame/Focus-	(1) Used to switch between single screen and multi screen mode. (2) Adjust the focus in PTZ mode.
	PTZ/IRIS-	(1) Enter the PTZ control interface. (2) Control IRIS of camera in PTZ control
7	Direction	(1) Move the active selection in a menu, select menu items setting. (2) Up/down button stands for single frame fast forward/playback, left/right button stands for speed up/slow down the video. (3) Switch live view channel or screen in live view mode. (4) Move the PTZ when in PTZ control.
	Enter	(1) Confirm selection in menu modes. (2) Switch to tick checkbox and ON/OFF. (3) In playback mode, can be used to play or pause the video. (4) In cruise mode, press to pause/restart the cruise.
8	JOG SHUTTLE	(1) In menu mode, it can move active bar of the menu up

	Control	and down. (2) Switch the live view channel or screen in live view mode. (3) Move the PTZ up and down in PTZ control.
9	POWER	Powers NVR on/off.

2.2 Using a USB Mouse

Item	Click	Description
Left Button	Single- click	Live view: select the channel and show the live view fast menu interface. Menu: select and confirm.
	Double-click	Switch between single screen to multi-screen when in live view mode and playback mode.
	Click and drag	(1) Control rotation direction in PTZ mode. (2) Set the target area in tamper-proof, motion detection and privacy mask alarm settings. (3) Drag the digital zoom area. (4) Drag the channel and the time scroll bar.
Right Button	Single-click	Live view: shows pop-up menu. Menu: escape and go to previous menu.
Scroll-wheel	Scroll up	Scroll up the page.
	Scroll down	Scroll down the page.

2.3 IR Remote Controller



F-2.1

NO	Name	Description
1	POWER	Power on/off the NVR
2	DEV	Enables/disables remote control
3	ABC/123	(1)Alphanumeric buttons are used to switch the corresponding channel in live view or PTZ Control mode. (2)Alphanumeric buttons are used to input numbers and characters in edit mode.
4	EDIT	(1)Used to enter the edit state. (2)Delete the character in front of the cursor.

		(3) Open up the IRIS of the camera when in PTZ state.
5	A	(1)Switch the input methods including figure, letters and symbols. (2) Auto scan when in PTZ control.
6	REC	(1)The REC/SHOT button is used to enter recording configuration interface. (2)When controlling a PTZ, press the REC/SHOT Button to invoke preset positions. (3)Open and close sound system when playback.
7	PLAY	(1)Enter the playback interface. (2)Auto scan when in PTZ control.
8	INFO	Zoom control when in PTZ control.
9	DISPLAY	(1)Switch between main and spot output. (2)To zoom the camera in PTZ mode.
10	MENU	(1)Enter the main menu interface. (2)Display/cover playback toolbar when in playback state. (3)Open/close the sound of front panel by pressing and holding more than 3 seconds.
11	PREV	(1)Used to switch between single screen and multiscreen mode. (2)Adjust the focus in PTZ mode.
12	DIRECTION/ ENTER	(1)Move the active selection in a menu, select menu items setting. (2)Up/down button stands for single frame fast forward/playback, left/right button stands for speed up/slow down the video. (3)Switch live view channel or screen in live view mode. (4)Move the PTZ when in PTZ control.
13	PTZ	(1)Confirm selection in menu modes. (2)Switch to tick checkbox and ON/OFF. (3)In playback mode, can be used to play or pause the video. (4)In cruise mode, press to pause/restart the cruise.
14	ESC	Same as ESC button on front panel
15	RESERVED	Reserve the settings
16	F1	(1)Select all items on the list. (2)Control light status when in PTZ control. (3)Switch to playback or sequence play in playback state
17	PTZ CONTROL	To adjust the iris, focus and zoom of a PTZ camera.
18	F2	The F2 button is used to switch menu attribute page.

3. Local Operation

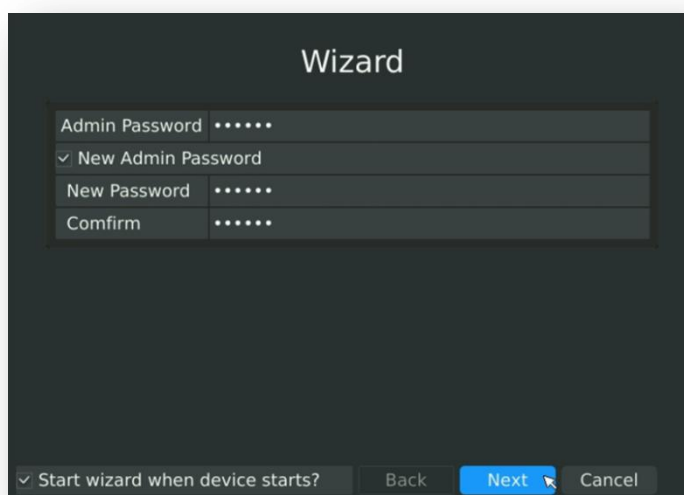
3.1 Wizard Setting

By default, the Setup Wizard will start once the NVR has loaded. The Setup Wizard will guide you complete some important settings to make sure the device function well. You can choose if you will enable wizard when device starts.

Please complete the configuration as following:

Step1. Input the username and password (Default username is 'admin' and password is '123456')

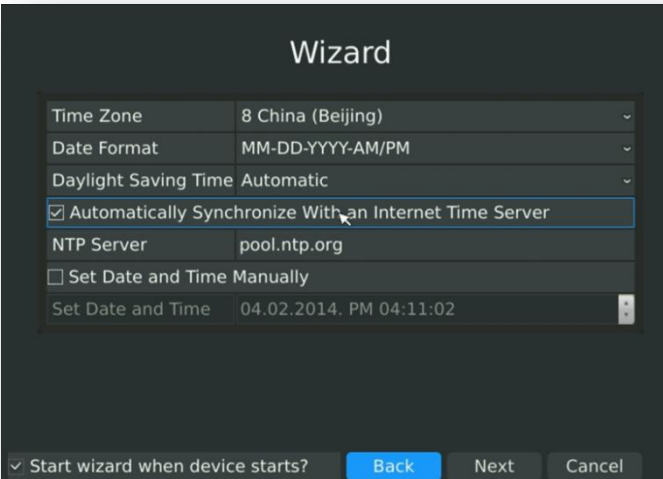
If you want to modify the admin password, input the new password.



F-3.1.1

Step2. Date and time setting

Select the Time Zone and Date Format or you can set date and time manually.



The screenshot shows a 'Wizard' window with a dark background. It contains a table of settings for time and date. The 'Automatically Synchronize With an Internet Time Server' option is checked and highlighted with a blue border. Below the table are three buttons: 'Back' (highlighted in blue), 'Next', and 'Cancel'. At the bottom left, there is a checkbox labeled 'Start wizard when device starts?' which is checked.

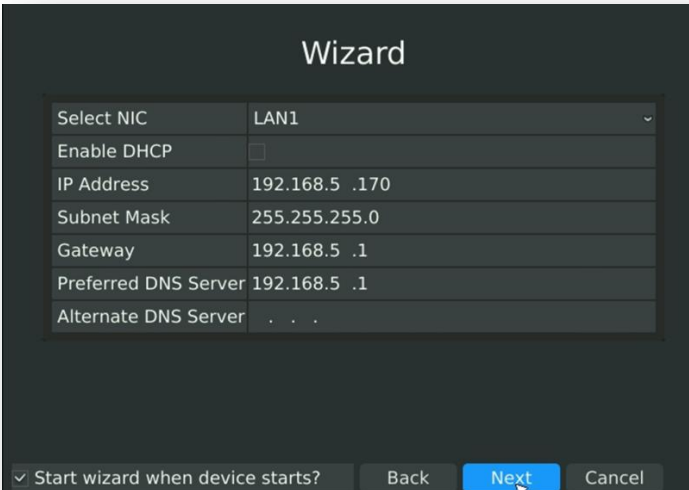
Wizard	
Time Zone	8 China (Beijing)
Date Format	MM-DD-YYYY-AM/PM
Daylight Saving Time	Automatic
<input checked="" type="checkbox"/> Automatically Synchronize With an Internet Time Server	
NTP Server	pool.ntp.org
<input type="checkbox"/> Set Date and Time Manually	
Set Date and Time	04.02.2014. PM 04:11:02

☒ Start wizard when device starts? **Back** Next Cancel

F-3.1.2

Step3. Network setting

Input the IP Address, Subnet Mask, Gate Way and Preferred DNS Server.



The screenshot shows a 'Wizard' window with a dark background. It contains a table of network settings. The 'Next' button at the bottom is highlighted in blue. At the bottom left, there is a checkbox labeled 'Start wizard when device starts?' which is checked.

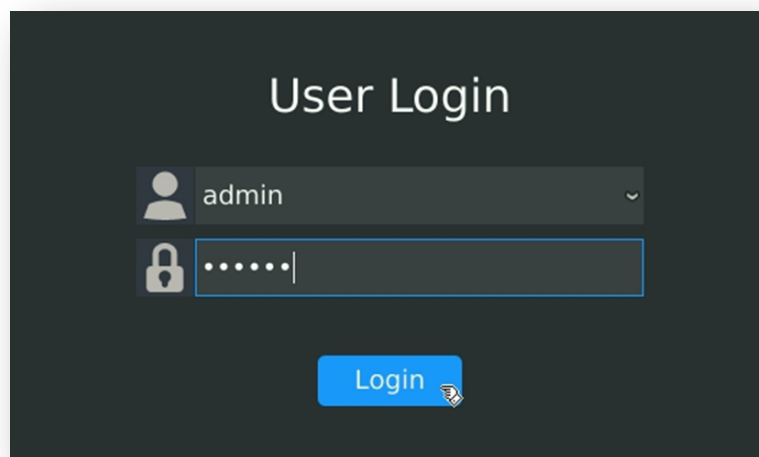
Wizard	
Select NIC	LAN1
Enable DHCP	<input type="checkbox"/>
IP Address	192.168.5 .170
Subnet Mask	255.255.255.0
Gateway	192.168.5 .1
Preferred DNS Server	192.168.5 .1
Alternate DNS Server	. . .

☒ Start wizard when device starts? Back **Next** Cancel

F-3.1.3

Step4. Login

Input the username and password.



F-3.1.4

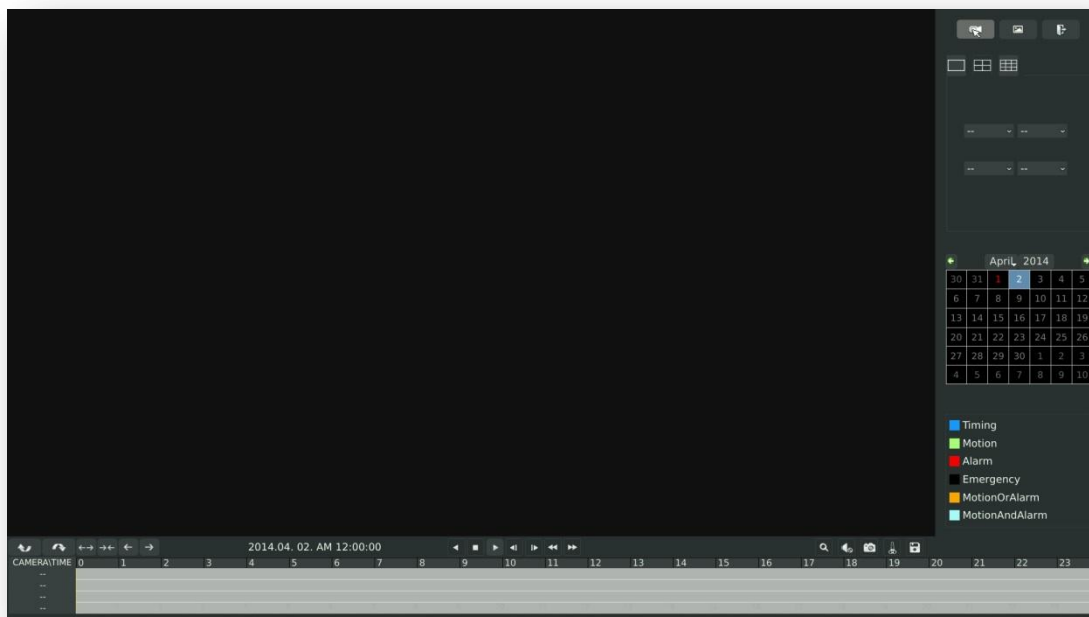
3.2 Playback

To play and backup the recorded files in specified time period.

3.2.1 Video Playback


It can support playback according to recorded time. Play recorded files in specified time period; synchronous playback of multi channels is supported.

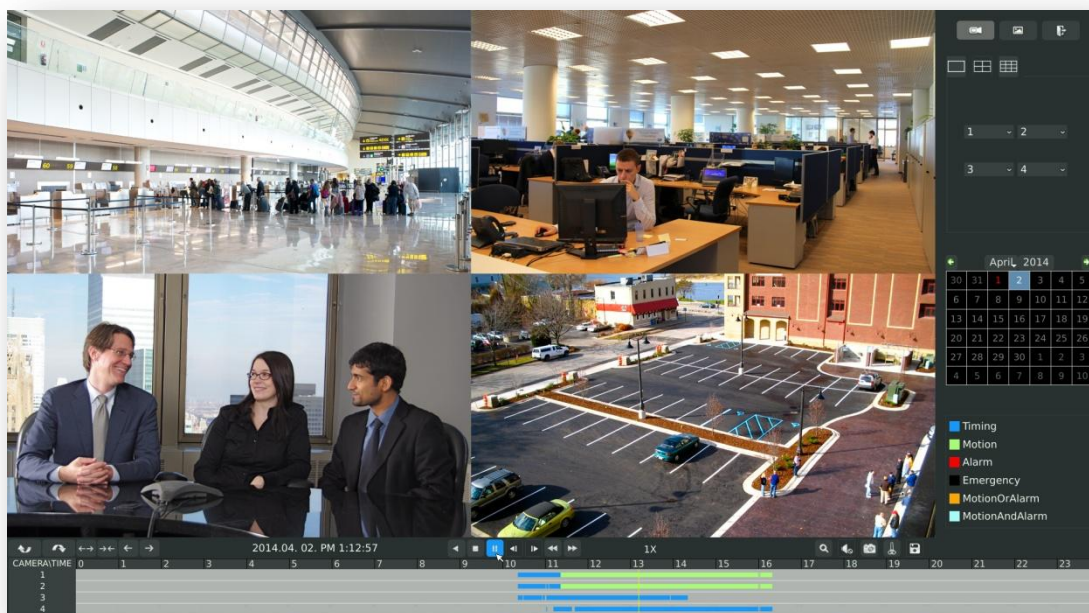
Step1. Enter Video Playback Interface shown in F-3.2.1 by clicking Main menu→Playback
→



F-3.2.1

Step2. Select a desired channel and date

Select playback layout and channel. Click the date in red when there are recorded files of the selected channels, the record type with recording data will be show as below, and then click  to playback.



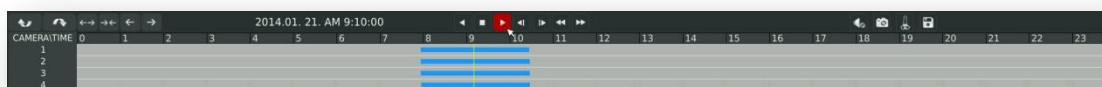
F-3.2.2

Note:

1. The day in red has recording files; please select the date in red to playback.

2. 16 channels can be selected to playback synchronously.

Video Playback Tool Bar Description

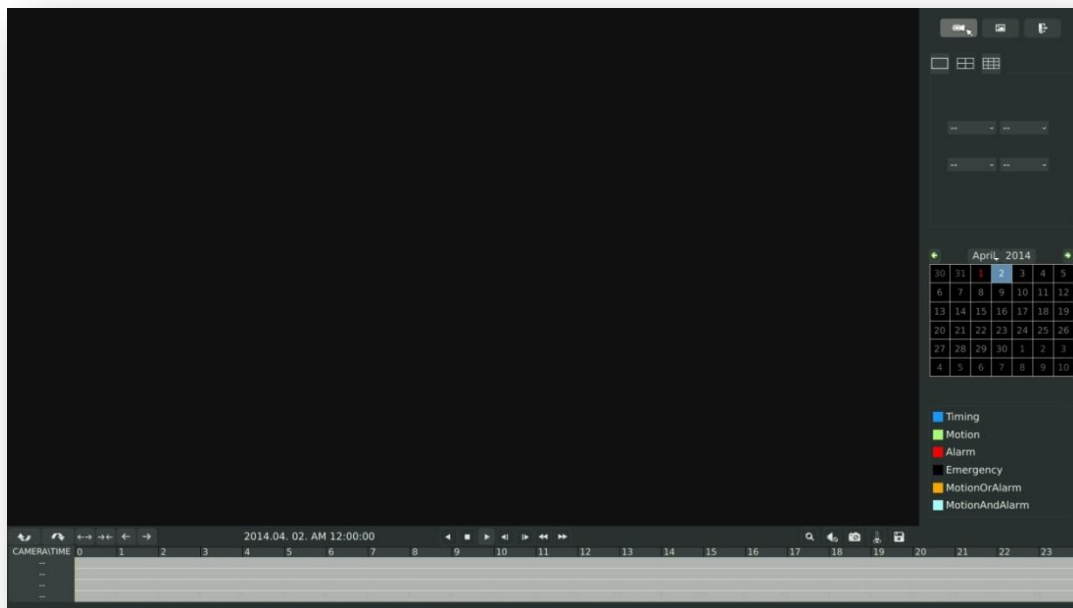


Button	Description	Button	Description	Button	Description	Button	Description
	Rewind		Stop		Play		Pause
	Reverse Step		Forward Step		Fast Backward		Fast Forward
	Previous 4 Cams		Next 4 Cams		Timeline Backward		Timeline Forward
	Timeline Zoom In		Timeline Zoom Out		Timeline		Playback Position
	Timeline Cutting		Timeline Cut Off		Audio On		Audio Off
	Snapshot		Backup				

3.2.1.1 Video Files Backup



Regular recorded files can be backed up by various devices, such as USB flash drives (USB flash disk, USB HDDs, USB writer), CD/DVD writer and eSATA, etc.

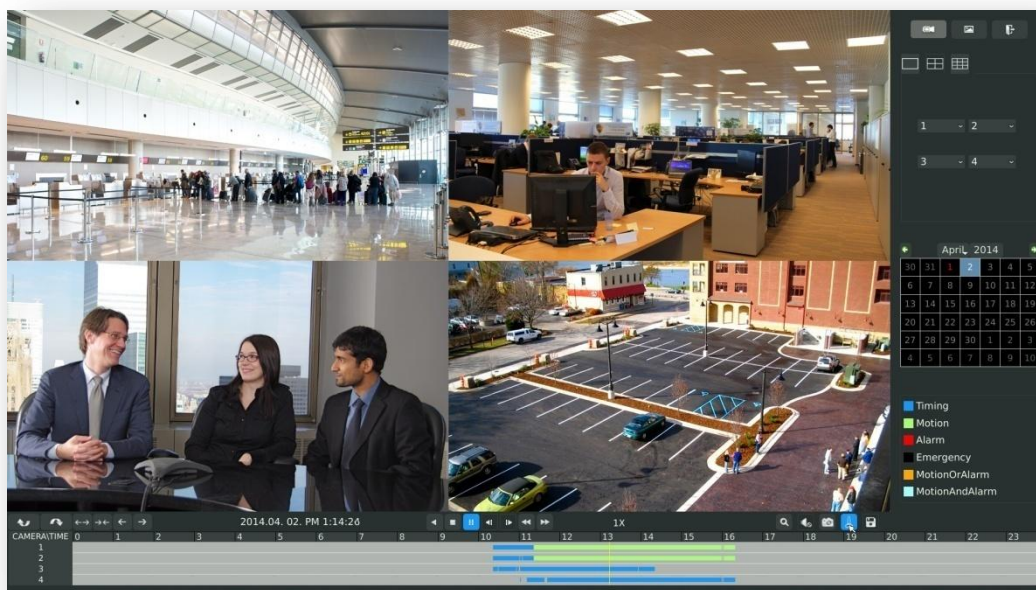
Satep1.Enter video playback interface by clicking Main menu→Playback→




F-3.2.3

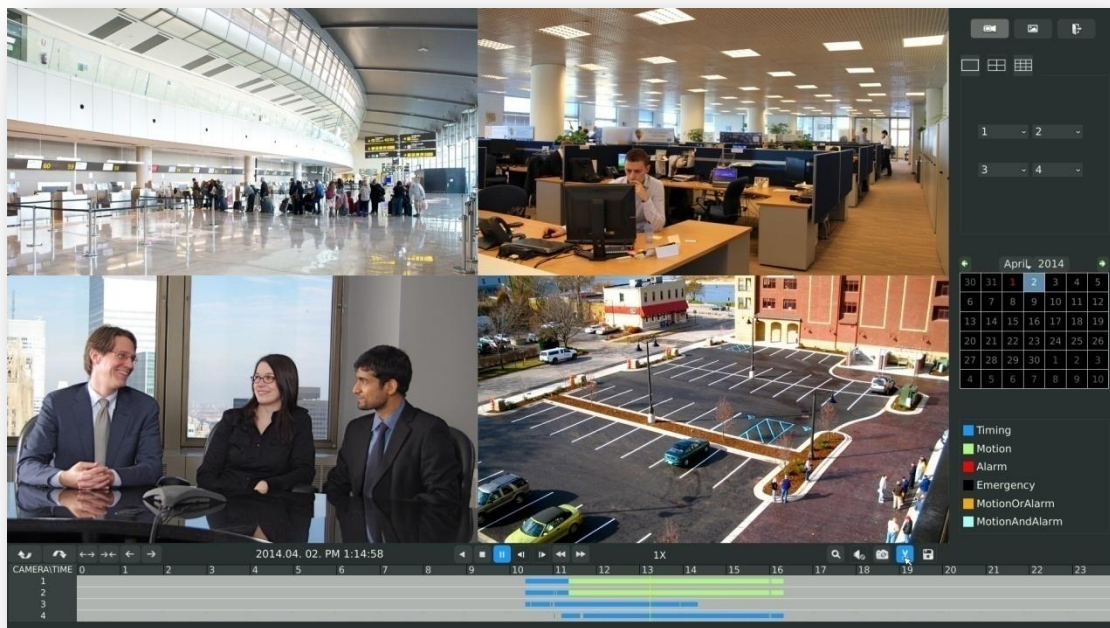
Step2.Select Recorded files for Backup

Select the channel and date you want to backup, click , then select the start time at time line and click 




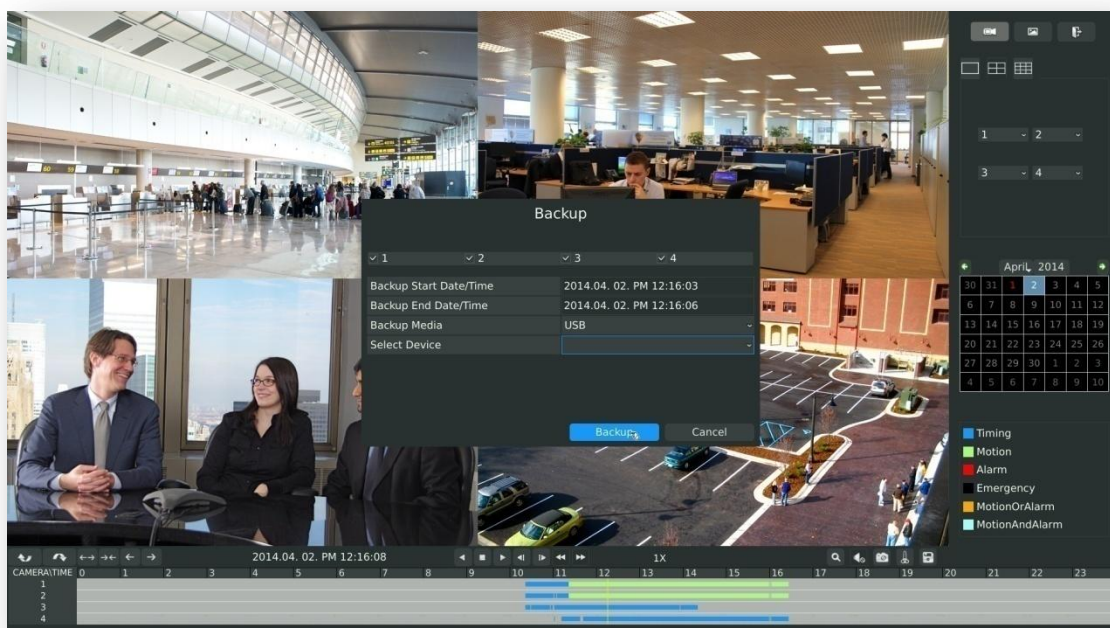
F-3.2.4

Select the end time at time line and click 



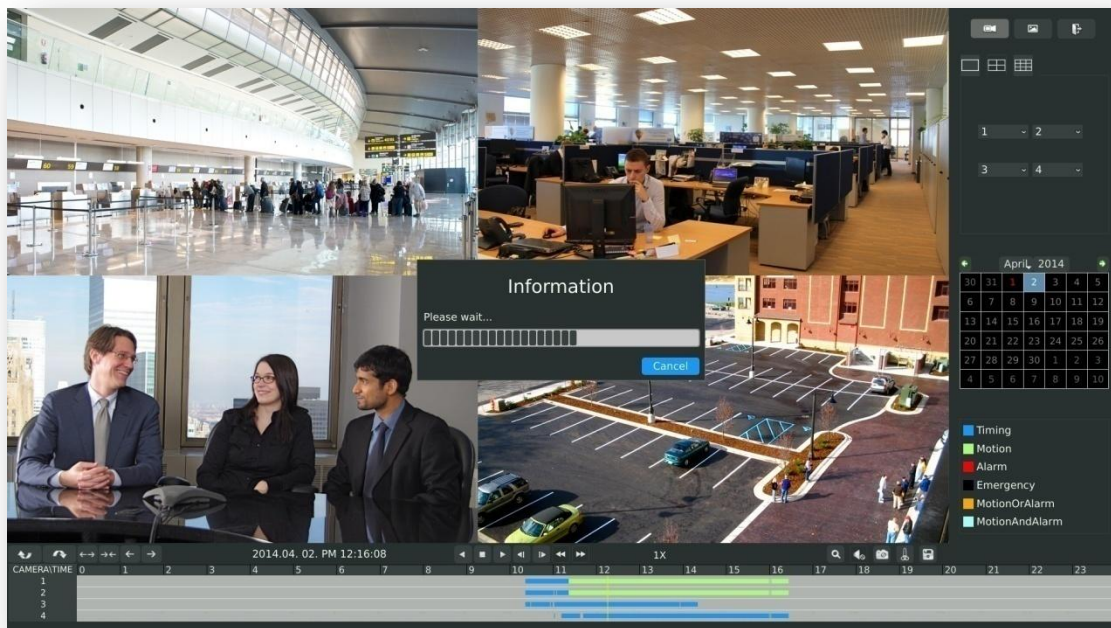
F-3.2.5

Step3. Click  enters to backup interface, select Backup media and click [Backup].



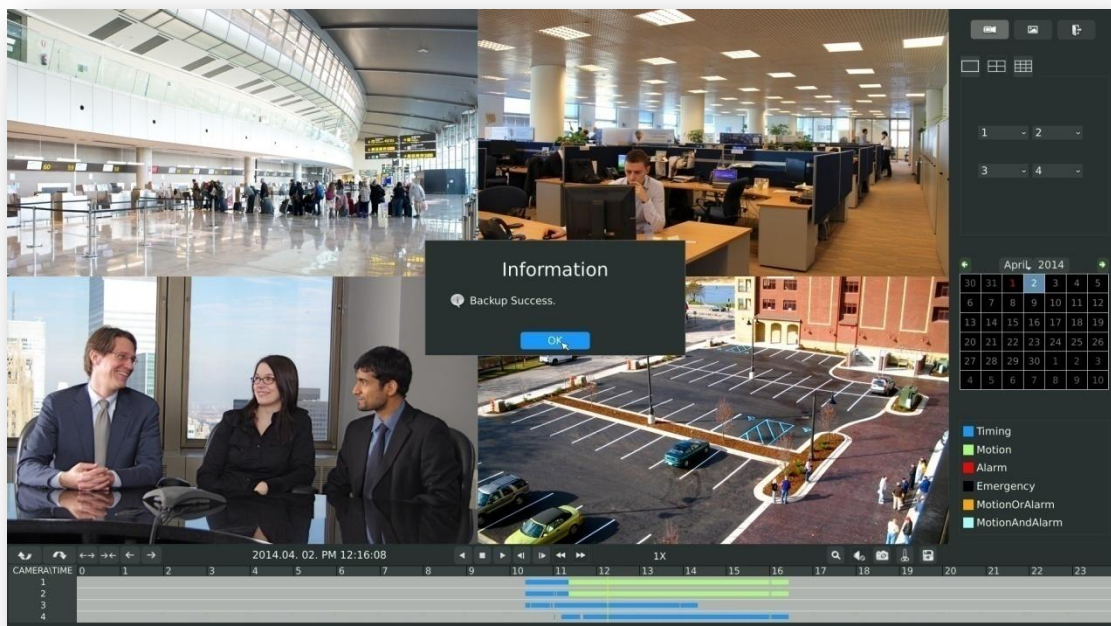
F-3.2.6

Step4. The pop-up window will prompt: Please wait...



F-3.2.7

Step5. When all backup files have been exported, 'Backup Success' will be prompted.



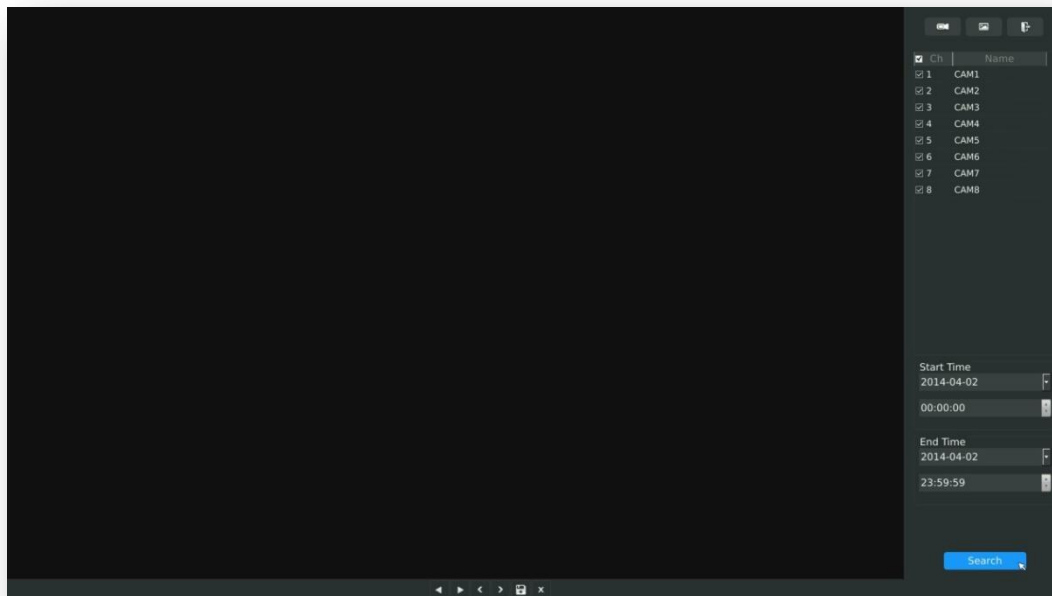
F-3.2.8

3.2.2 Picture Playback

Search and look for the snapshot files saved in HDD.



Step1. Enter Picture Playback Interface by clicking Main menu→Playback→ 

Select a desired channel, start time and end time, click [Search]



F-3.2.9

Step2. Enter Picture Info List, Look up the Pictures.







Click  to play the desired pictures. Or click  to auto play the picture.



F-3.2.10

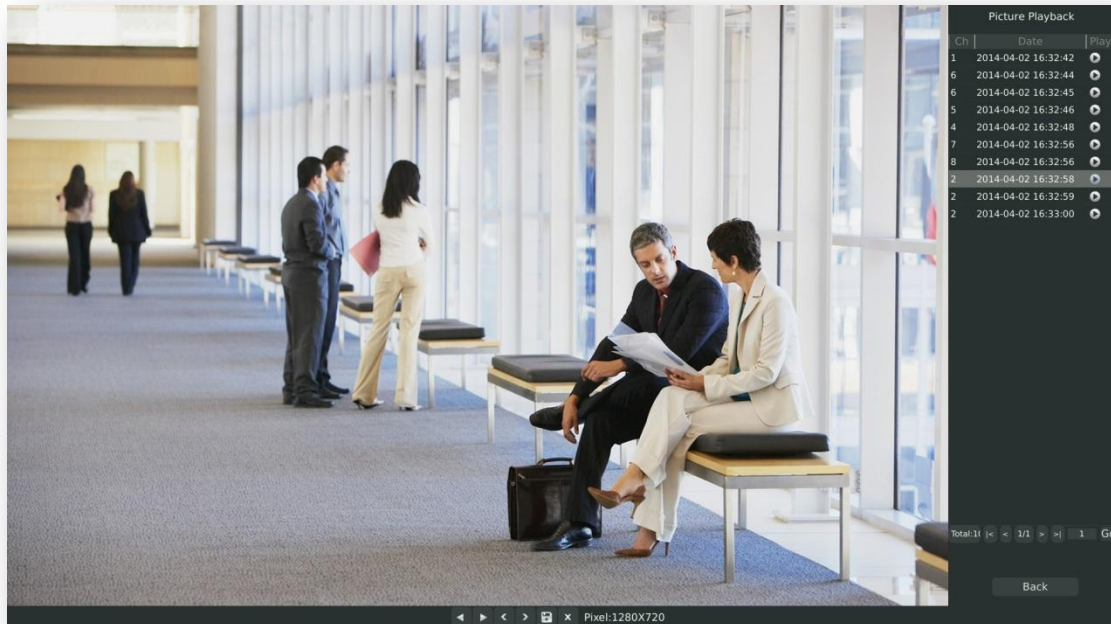
Picture Playback Tool Bar Description




Button	Description	Button	Description	Button	Description	Button	Description
	Backward Play		Play		Previous Picture		Next Picture
	Backup pictures		Close				

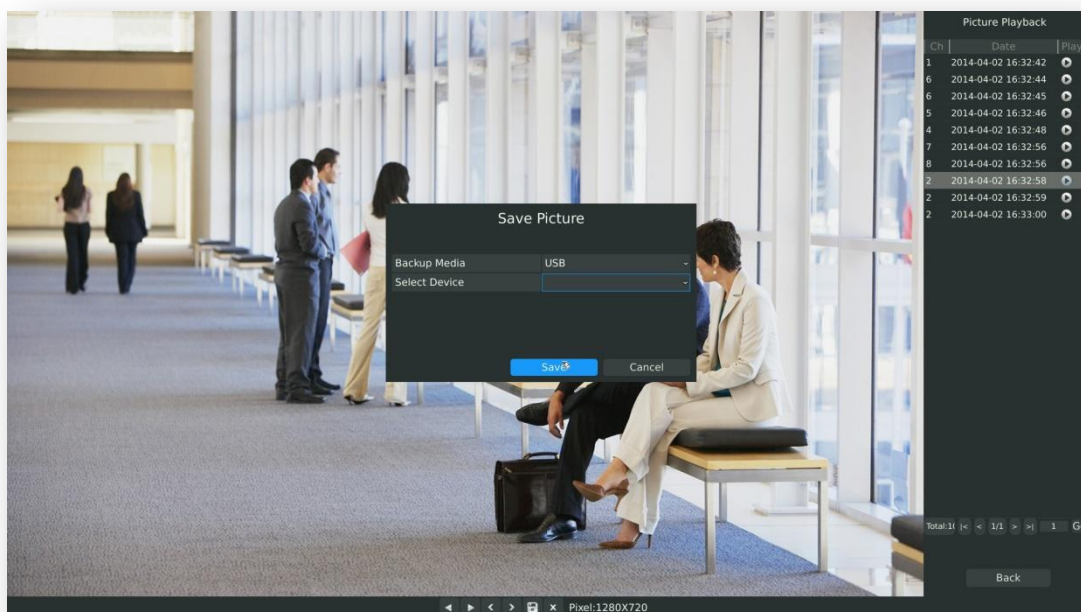
3.2.2.1 Picture Files Backup

Step1: Select pictures you want to backup in picture playback interface.



F-3.2.11

Step2: Select backup media and click  to save picture.



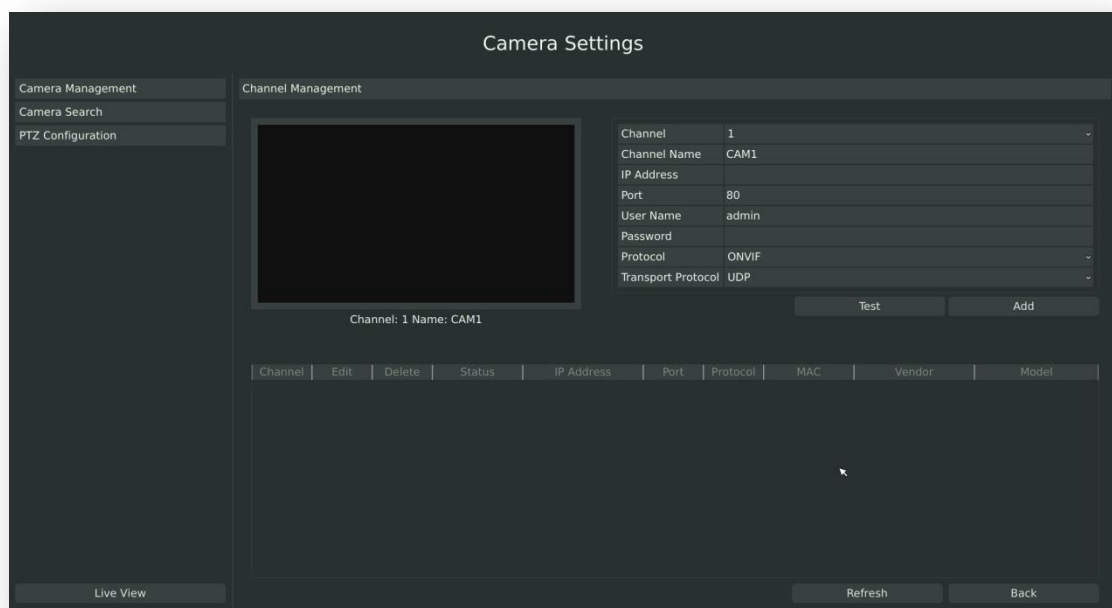
F-3.2.12

3.3 Camera Settings

Before configuration, please ensure that the IP device is connected to the same network as your NVR and that the network setting for your NVR is properly setup.

3.3.1 Camera Management

Step1.Enter camera management interface by clicking main menu→Camera →Camera Management to enter camera management interface.

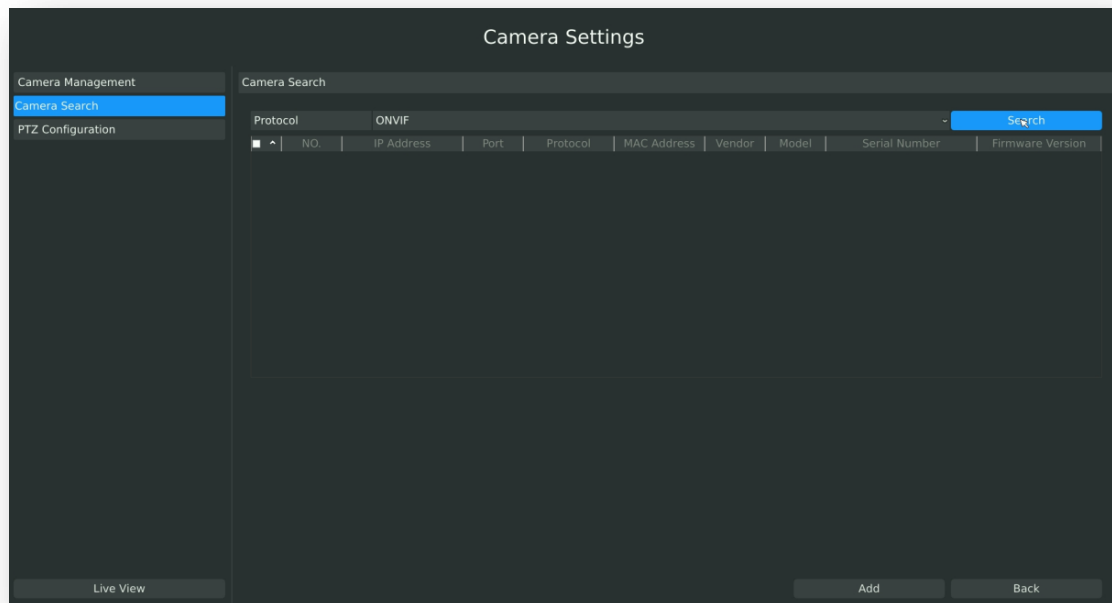


F-3.3.1

Step2.Add IP Channel

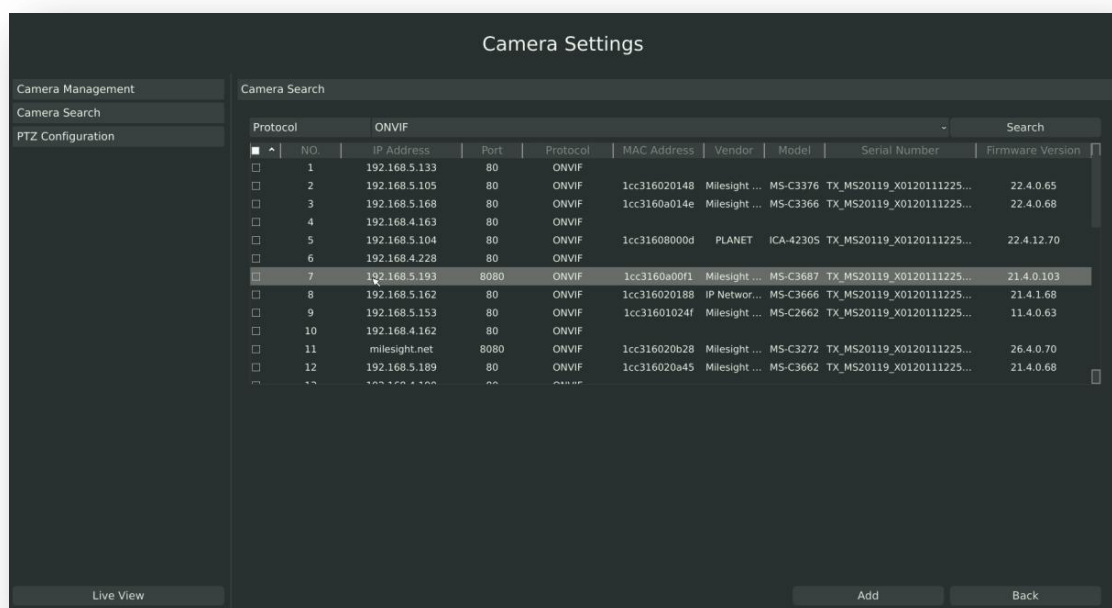
Method1. Add IP Channel in camera search interface

1.Enter to camera search interface by clicking Main Menu→Camera→Camera to Search.



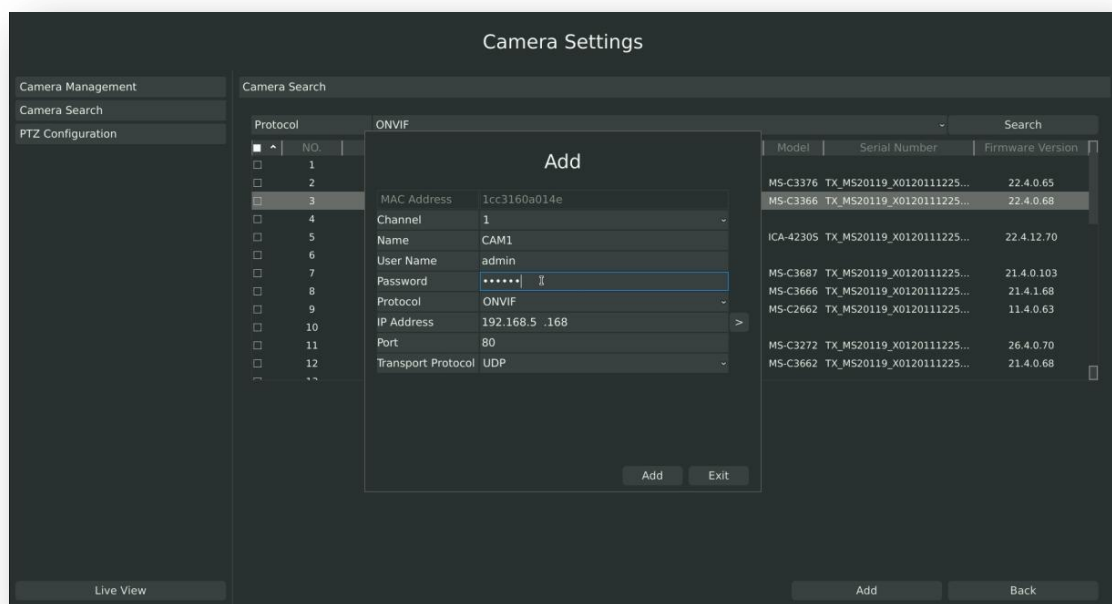
F-3.3.2

2. Click [search] button to quickly search the IP devices that support ONVIF at the same network segment with NVR.



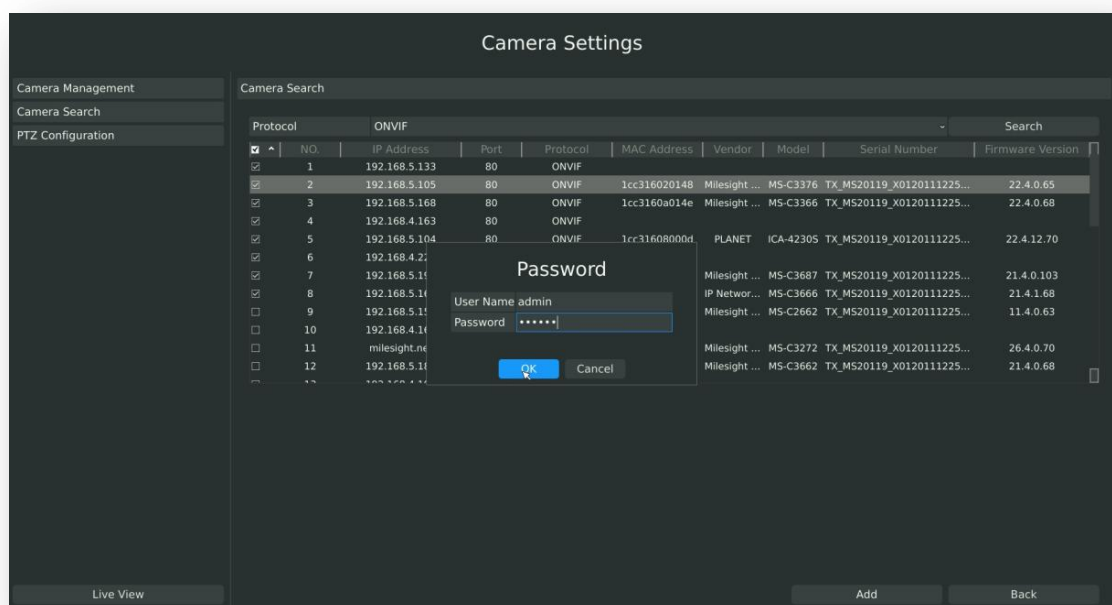
F-3.3.3

3. Double click the channel, input password and click [Add] button.



F-3.3.4

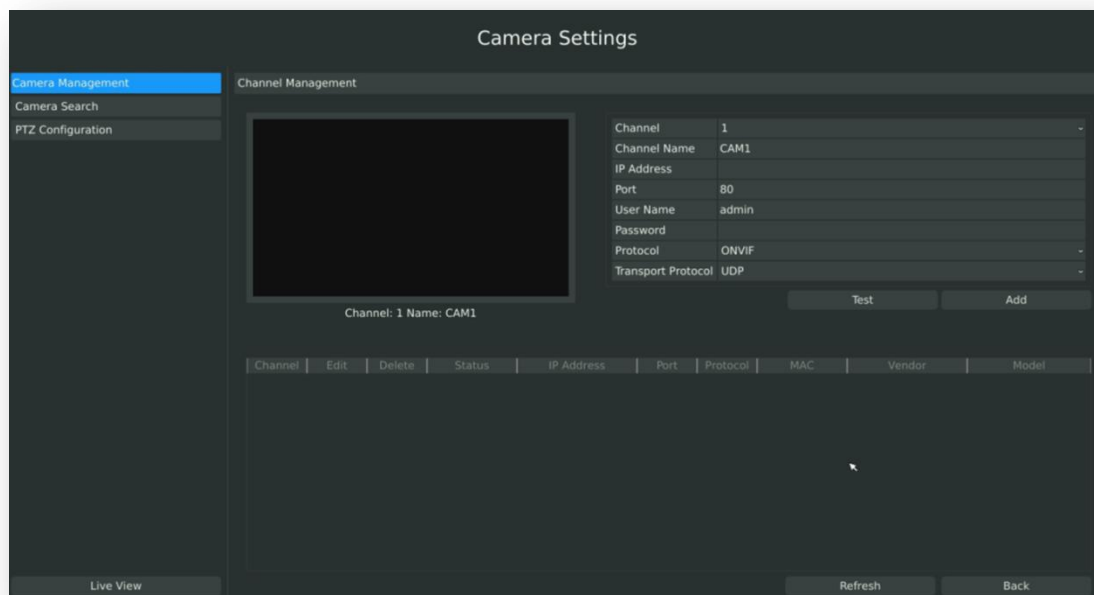
Or Check ☒ to bulk adding the IP cameras if they are with same password.



F-3.3.5

Method2. Add IP Channel in camera management interface

1. Enter to camera management menu by clicking Main Menu→Camera→Camera to Management



F-3.3.6

2. Select the attribute page of 'IP Channel', select idle channel then input complete information
Click [Add] button.



F-3.3.7

Step3. Check the connection status

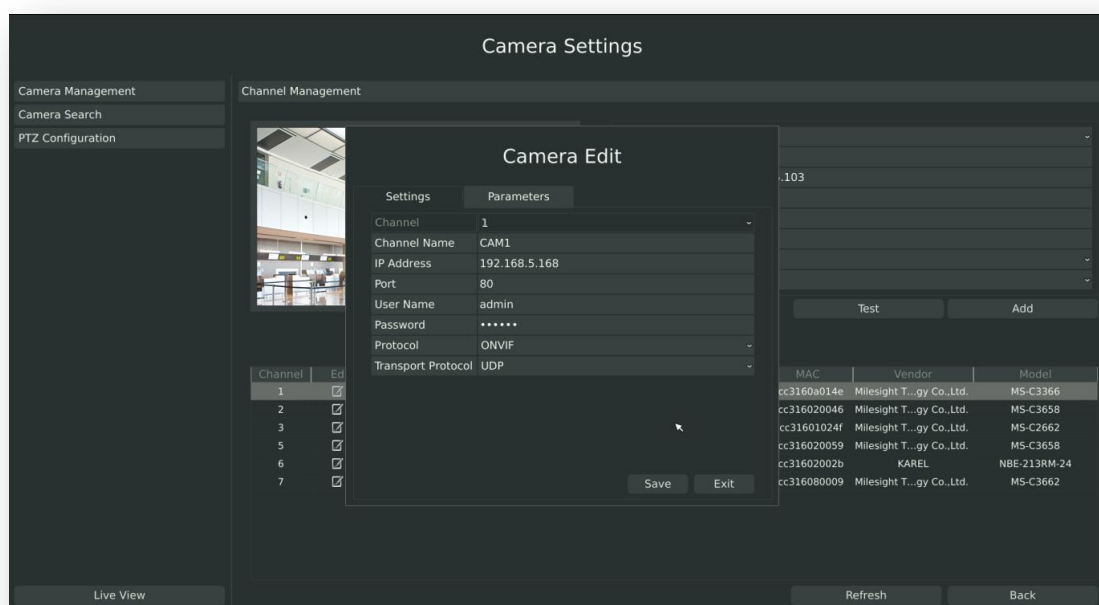
After adding the IP channels, click [Refresh] button, the [state] will show [connected] as below, If not, you need to check if the network is connected or whether the user name, password is correct or not.

Channel	Edit	Delete	Status	IP Address	Port	Protocol	MAC	Vendor	Model
1	<input checked="" type="checkbox"/>		Connected	192.168.5.168	80	ONVIF	1cc3160a014e	Milesight T...gy Co.,Ltd.	MS-C3366
2	<input checked="" type="checkbox"/>		Connected	192.168.5.169	80	ONVIF	1cc316020046	Milesight T...gy Co.,Ltd.	MS-C3658
3	<input checked="" type="checkbox"/>		Connected	192.168.5.153	80	ONVIF	1cc31601024f	Milesight T...gy Co.,Ltd.	MS-C2662
5	<input checked="" type="checkbox"/>		Connected	192.168.5.191	80	ONVIF	1cc316020059	Milesight T...gy Co.,Ltd.	MS-C3658
6	<input checked="" type="checkbox"/>		Connected	192.168.5.192	80	ONVIF	1cc31602002b	KAREL	NBE-213RM-24
7	<input checked="" type="checkbox"/>		Connected	192.168.5.152	80	ONVIF	1cc316080009	Milesight T...gy Co.,Ltd.	MS-C3662

F-3.3.8

Step4.Configure IP Channel

1. After successfully adding the channel, click or double-click this channel to re-edit the channel info, address, and password, etc.

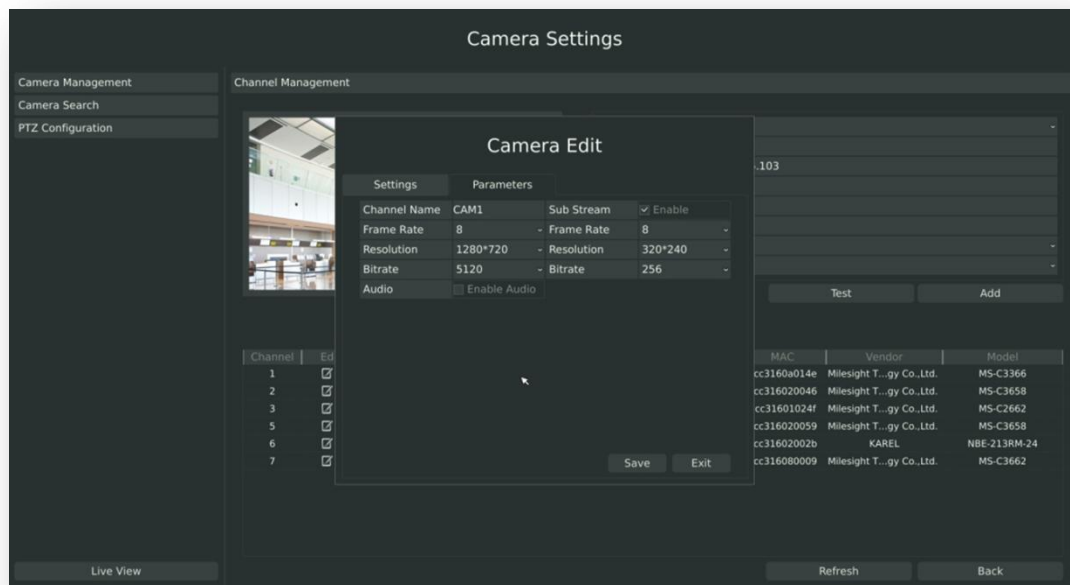


F-3.3.9

Note:

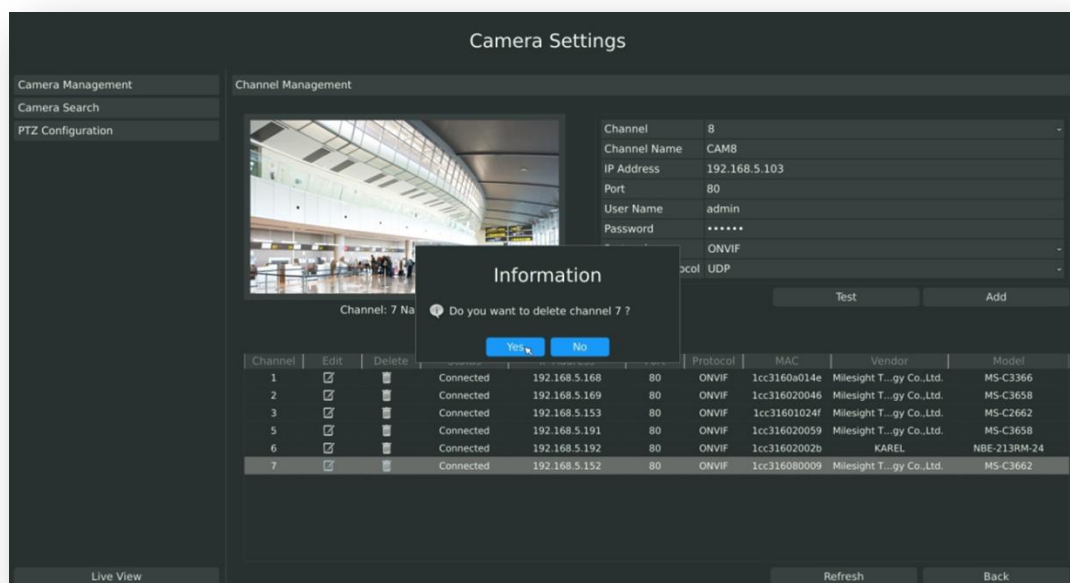
By default, the user name and password entered here are the default user name and password. The management port is 80 and the default Transport protocol is UDP.

2. Select [Parameters] attribute page to re-edit this channel parameters. Click [Save] to save the configuration



F-3.3.10

3. You can delete this IP channel by clicking 

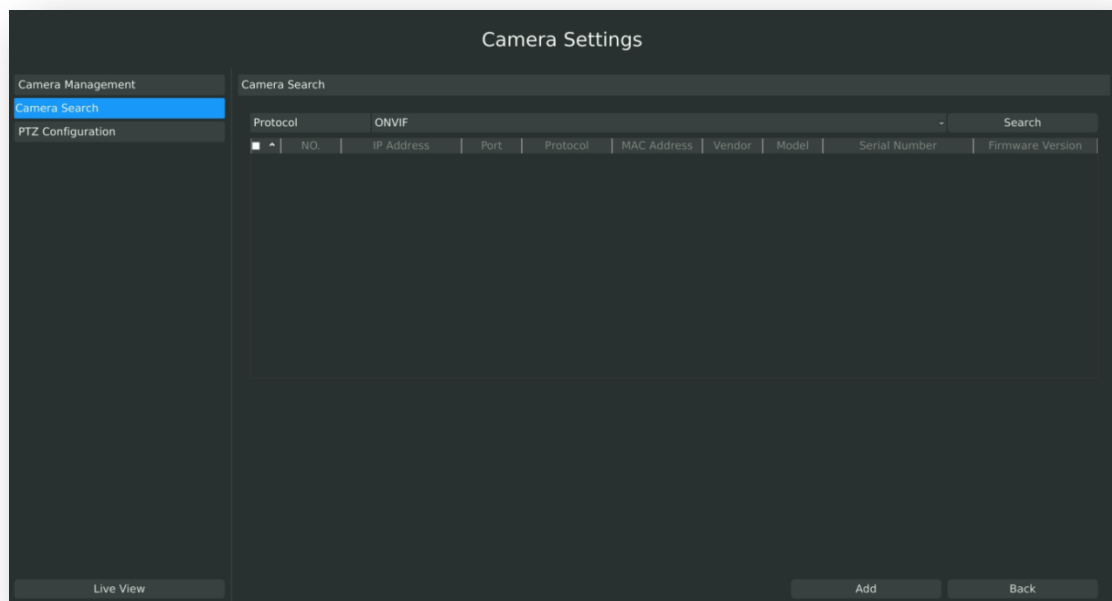


F-3.3.11

3.3.2 Camera Search

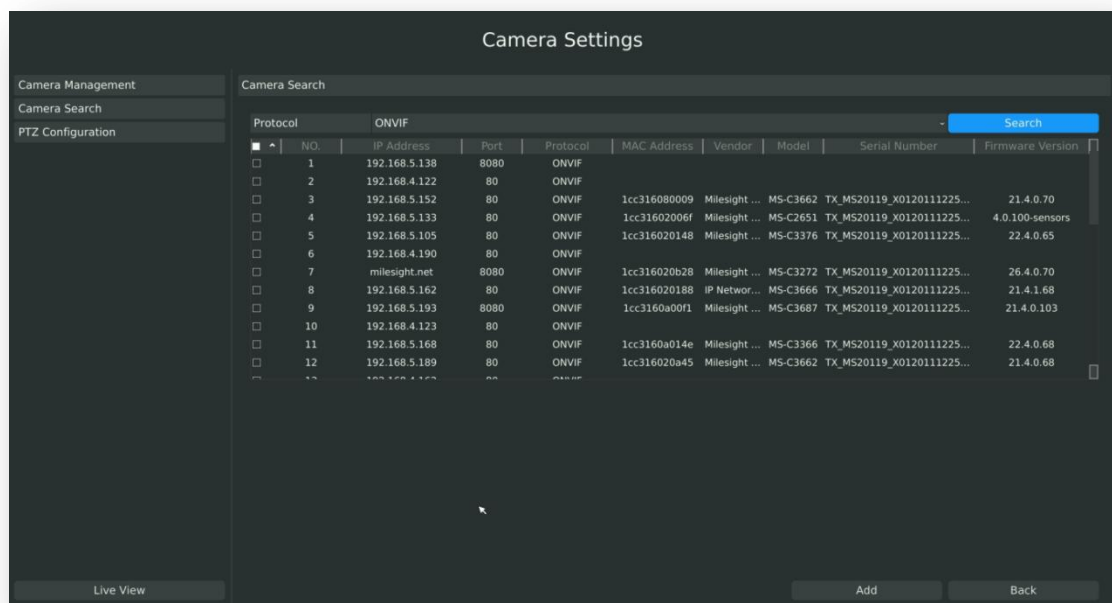
You can search and add IP cameras here

Step1. Enter camera search interface by clicking Main menu → Camera → Camera Search



F-3.3.12

Step2.Click [search] to quickly search the IP devices that support ONVIF at the same network segment with NVR.



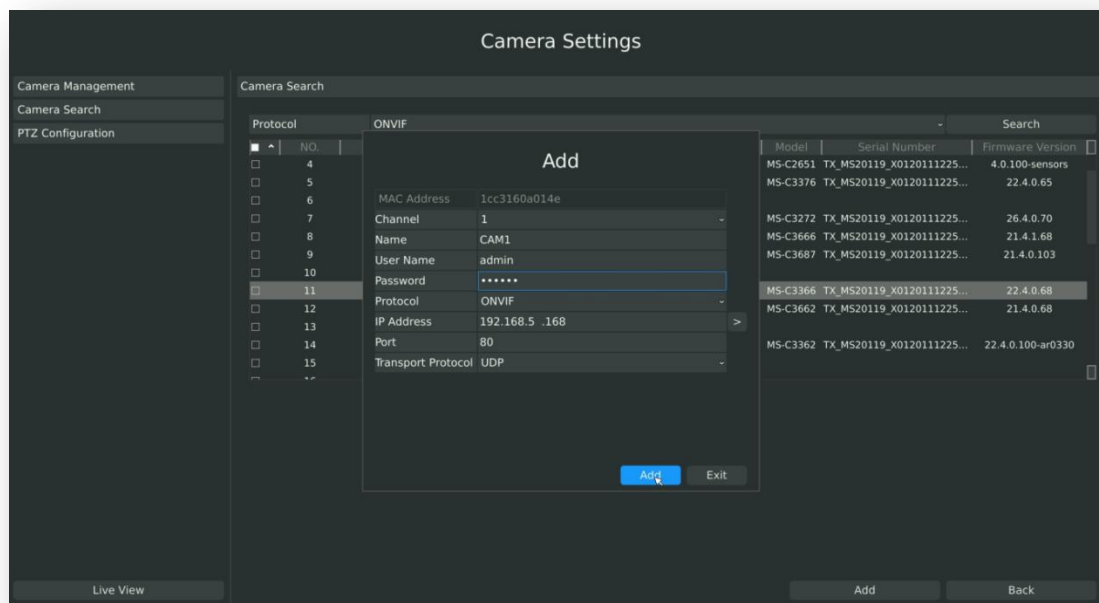
F-3.3.13

Note:

The IP devices found in the list are those that support ONVIF protocol and in the same network segment with NVR.

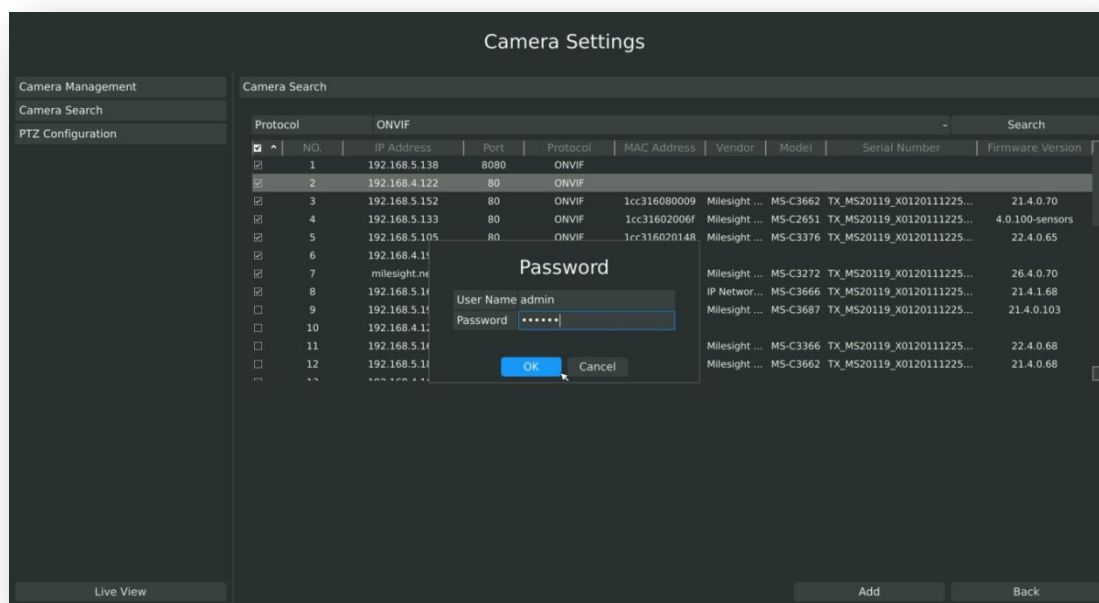
Step2.Add IP Camera

Double click the channel, input password and click [Add] button.



F-3.3.14

Or you can bulk adding the IP cameras if they are with same password. Click [OK] to finish bulk adding.



F-3.3.15

3.3.3 PTZ Configuration

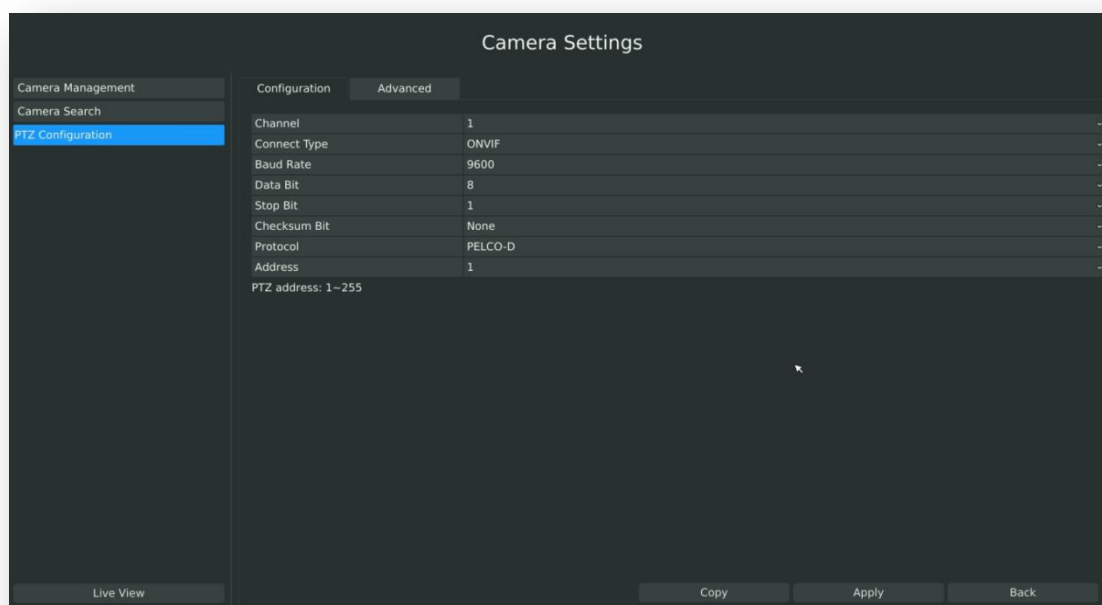
3.3.3.1 PTZ control Parameters Configuration

Note:

Settings for a PTZ camera must be configured before it can be used. Make sure that the PTZ and RS-485 of the NVR are connected properly.

Step: Enter configuration interface by clicking Main Menu→ Camera→PTZ Configuration, select “Configuration” page

Select a channel and set the PTZ parameters. You can click [Copy] to copy the same configuration to other channels.



F-3.3.16

Note: The PTZ protocol and address of IP channel must be consistent with those of the PTZ decoder.

3.3.3.2 Advanced Configuration

There are two patrol ways can be set: Track Patrol and Tour Patrol

Note:

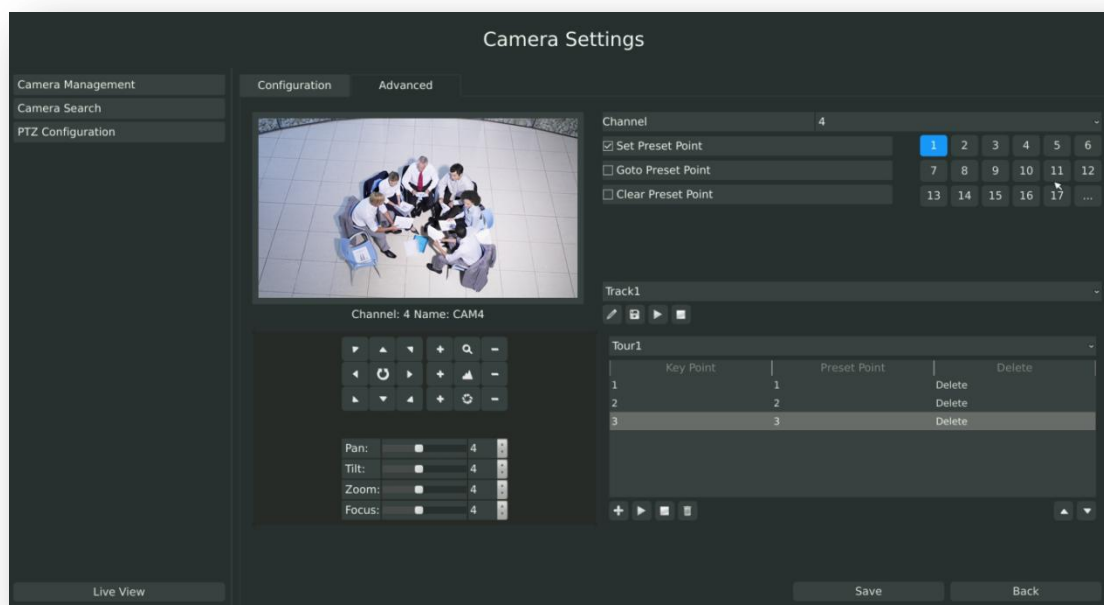
1. IP channel does not support configuration and calling of presets, patrols and patterns.
2. The functioning of presets patrols and patterns need front PTZ decoder to support.

Route: Main Menu→ Camera→PTZ Configuration, select “Advanced” page

1.Presets Point Setup

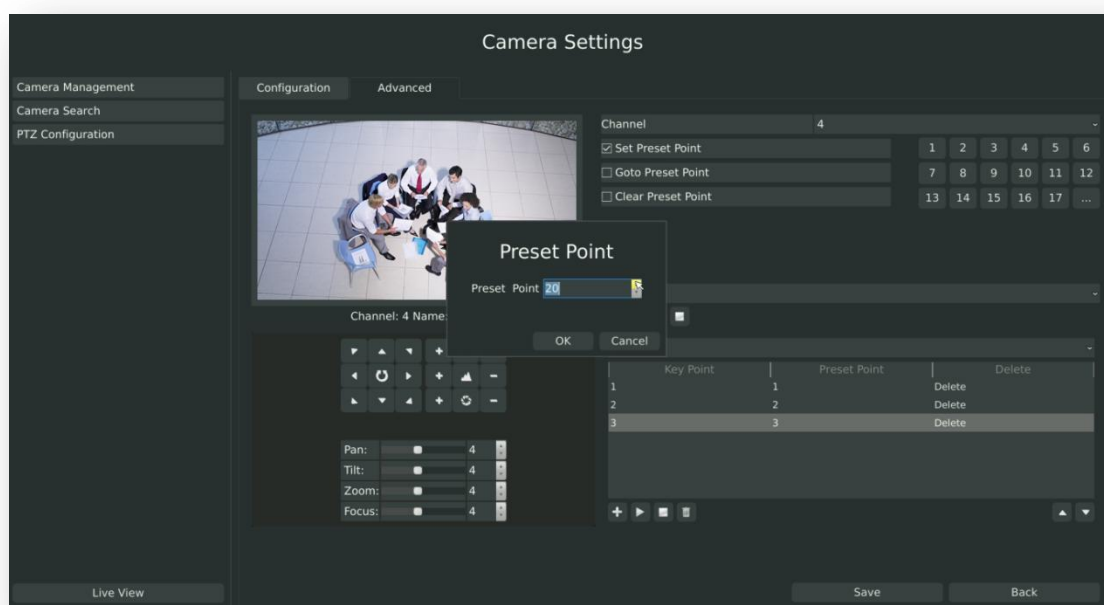
Preset can be set to move your PTZ camera to a desired preset location. The preset point is the preparation for Tour Patrol.

Step1. Use the PTZ direction key to rotate the position of preset. Then select “Set Preset Point” and select a preset number to finish a preset point setting. Repeat above steps to set more preset points.



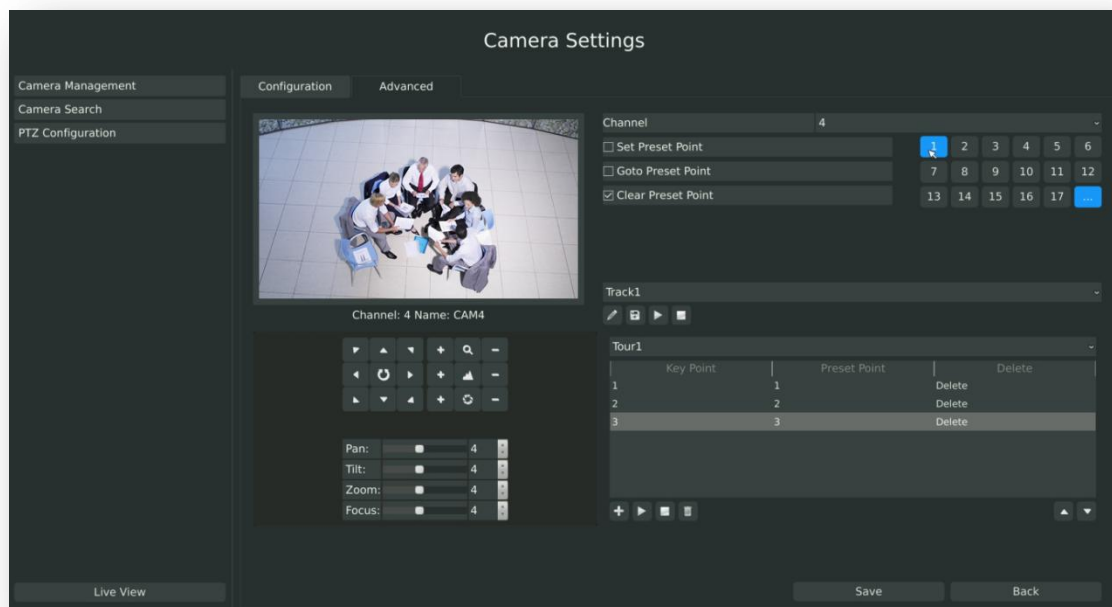
F-3.3.17

Step2. Click  to save or call more preset points after number 17.



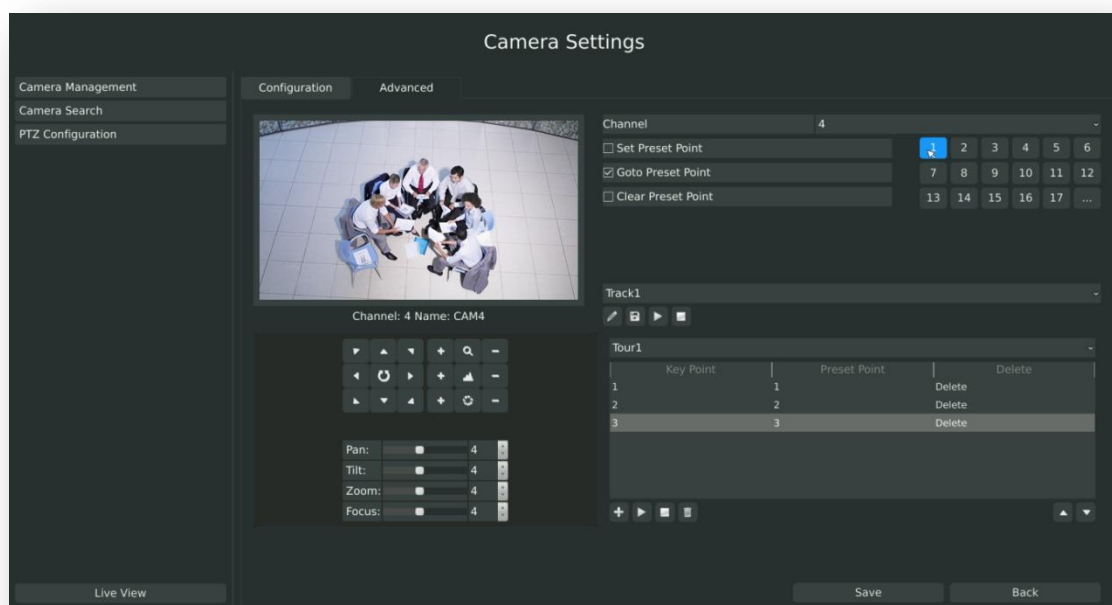
F-3.3.18

Step3. Select ‘Clear Preset Point’ and click a preset number to delete the preset point.



F-3.3.19

Step4. Select “Go to Preset Point”. Click a preset number to check the preset point.

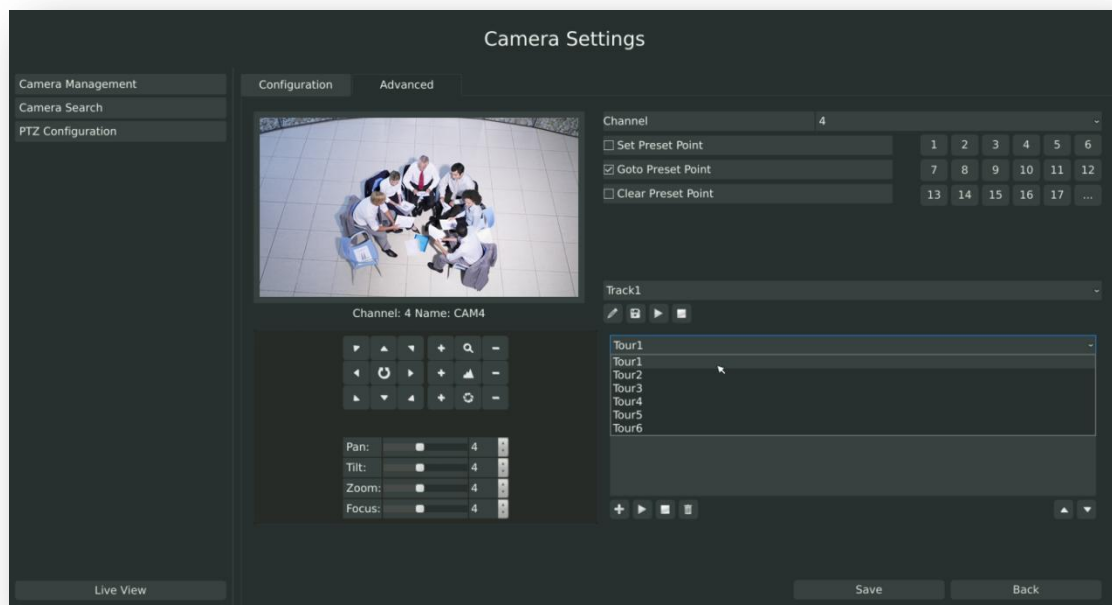


F-3.3.20


2.Tour Patrol

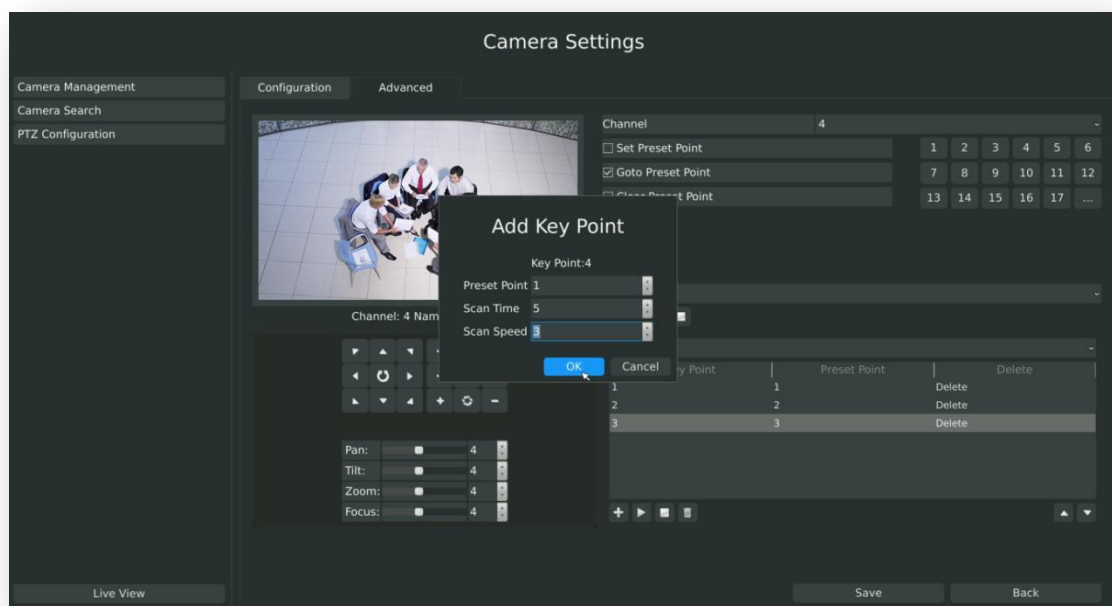
The camera will patrol according to the key points. The total time and patrol speed of the tour is variable.

Step1. Select a tour. Up to 6 tours could be set.



F-3.3.21

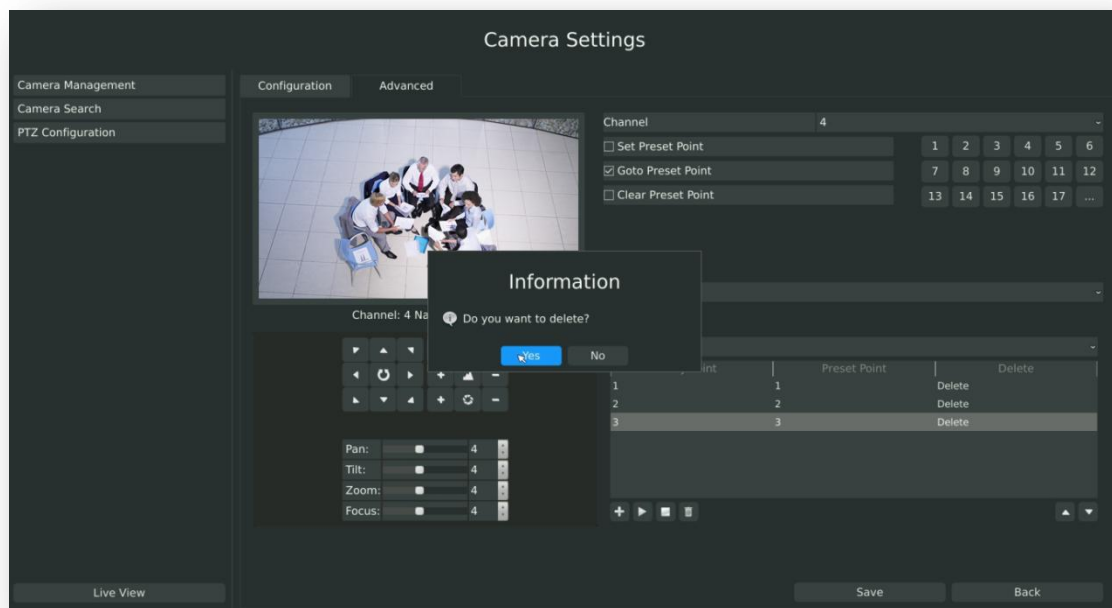
Step2. Click  to add key points. Set the key point parameters (including preset point number, scan time and scan speed) and click [OK].





F-3.3.22

Step3. Repeat the above steps to add more key points to the tour patrol.

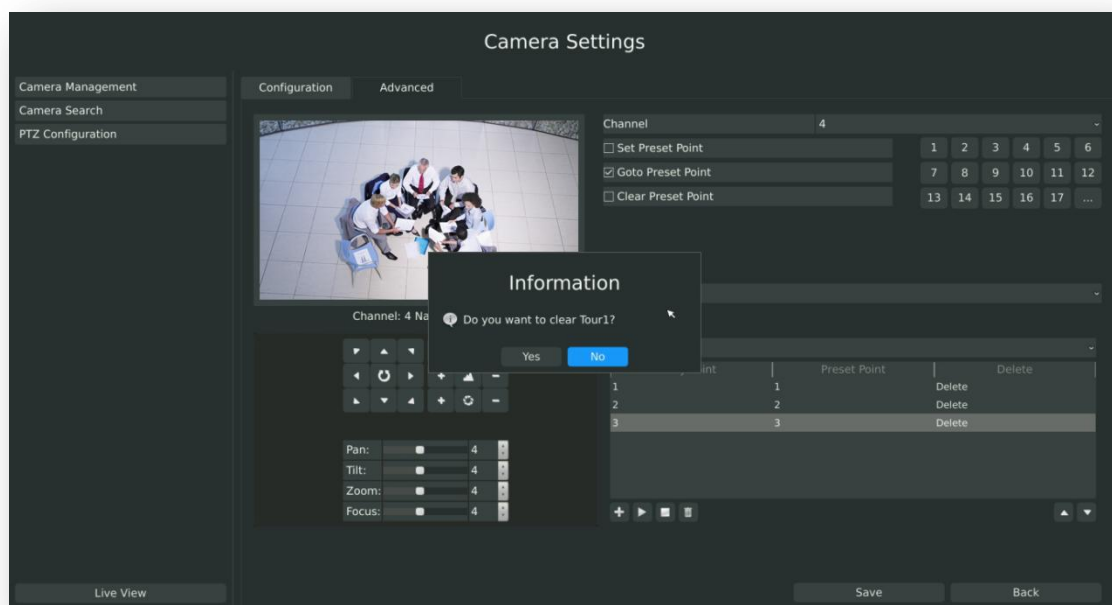
Step4. Select a key point, select [Delete] and select [Yes] in the dialog box to delete it.



F-3.3.23

Step5. Click  to preview the tour patrol. Click  to stop.

Step6. Click  and select [Yes] in the dialog box to delete all key points of the tour patrol.



F-3.3.24

Note:

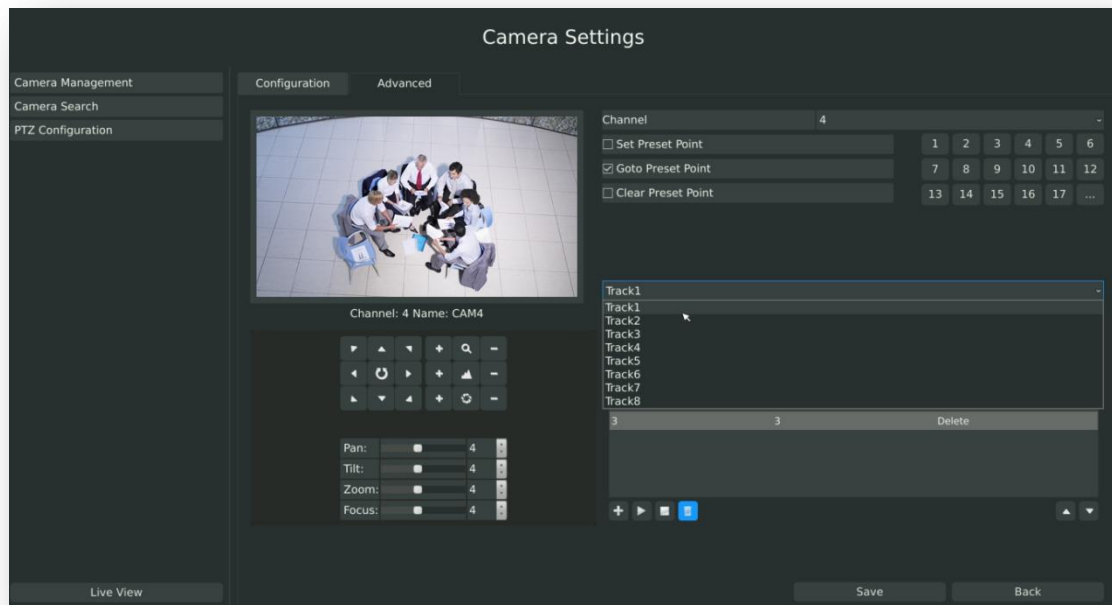
1. The key point decides the patrol path, which will run according to numerical order of the key points.
2. Scan time is how long the patrol stays on the preset point.

3. Scan speed is the rotate speed of speed dome from one preset point to the next.

3. Track Patrol

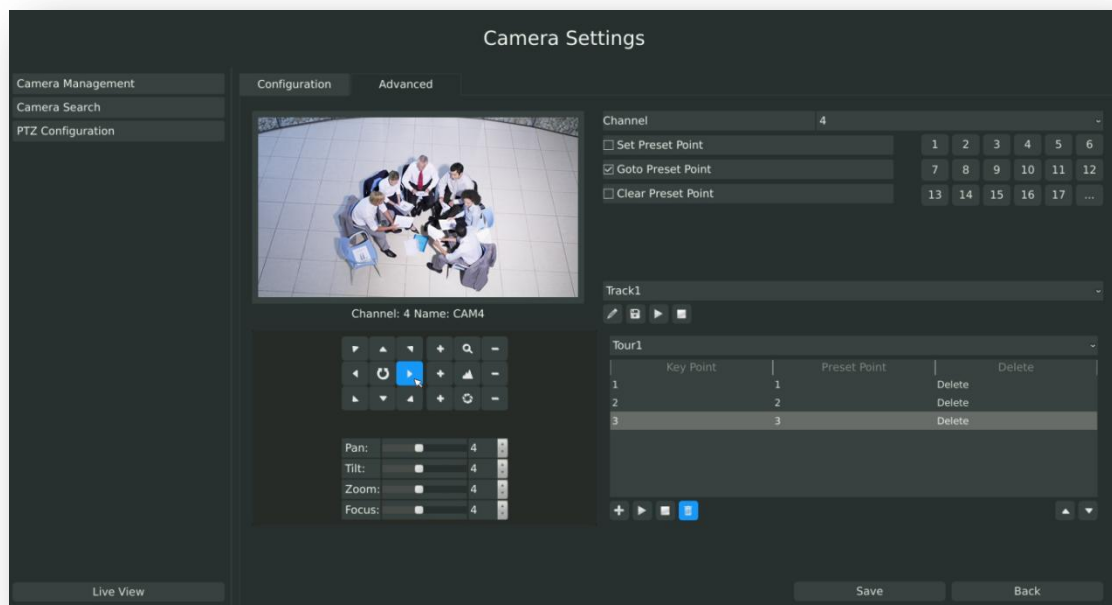
The camera will patrol back and forth in a constant speed. There are only a start point and an end point.

Step1. Select a track and click . Up to 8 tracks could be set.





F-3.3.25

Step2. Drag the mouse or click 8 direction keys of mouse control field to rotate PTZ.



F-3.3.26

Step3. Click  to save the PTZ movement patterns to the Track Patrol.

Step4. Click  to preview the track patrol. Click  to stop.










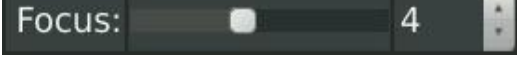
3.2.3.3 PTZ Control Operation

In live view mode, select quick menu of live view channel to enter PTZ control mode. It can access PTZ control by PTZ control bar or panel PTZ control button.

Description of PTZ Control Bar



F-3.3.27

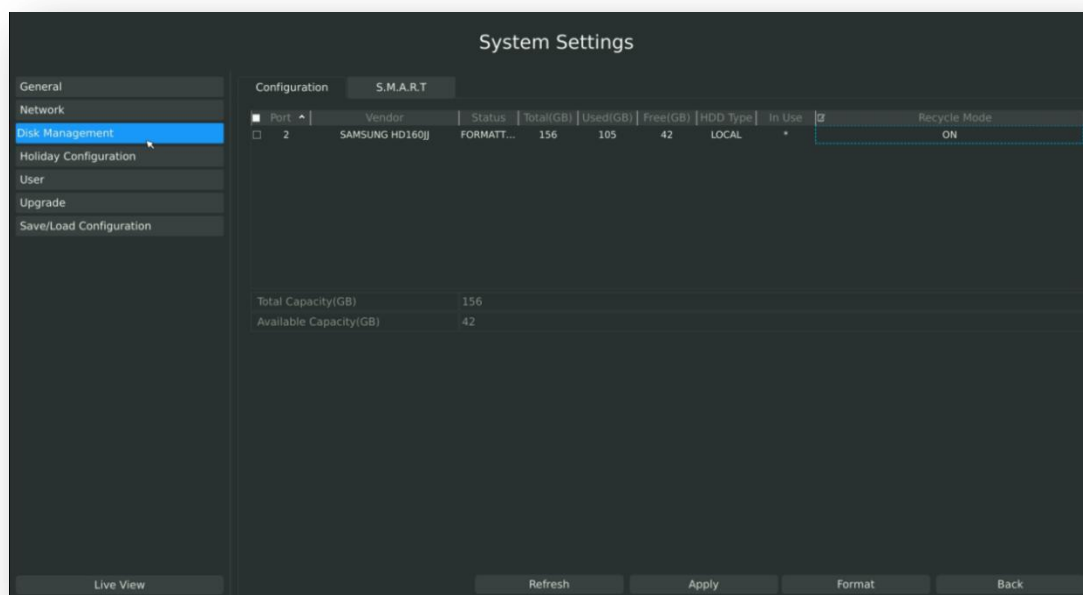
Icon	Description	Icon	Description	Icon	Description
	PTZ Direction Control and Auto Scan Button		Adjust Zoom+, Focus+, IRIS+		Adjust Zoom-, Focus-, IRIS-
	Zoom: Zoom in or out		Focus		IRIS
			Horizontal Movement Adjustment		
			Vertical Movement Adjustment		
			Zoom Adjustment		
			Focus Adjustment		

3.4 Record Settings

Preparation for Configuration

Step1.Ensure your NVR has Install and initialize the HDD.

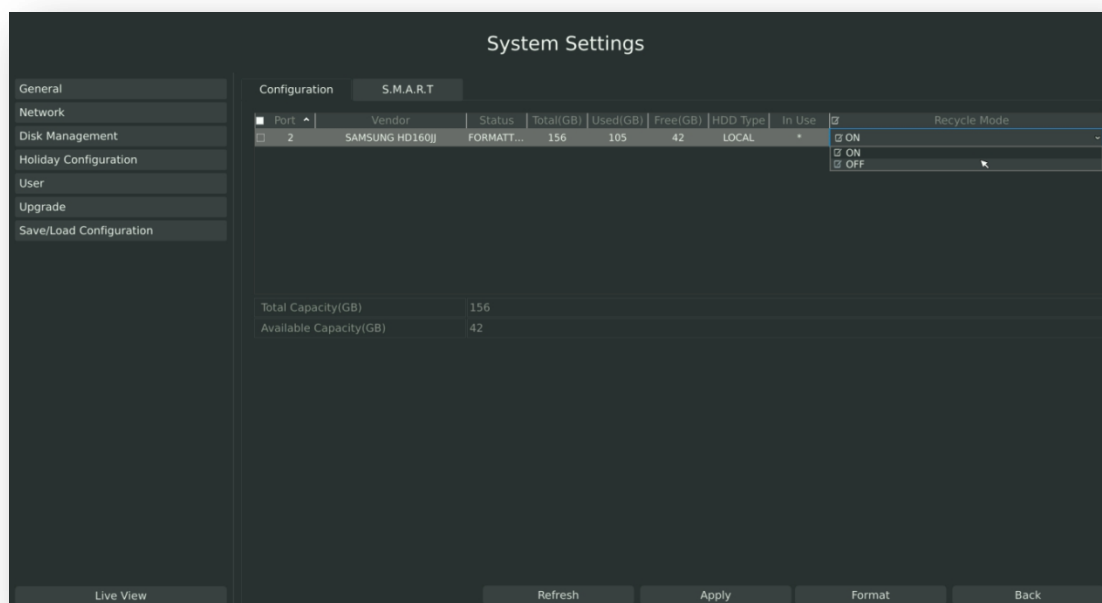
Enter disk management interface by clicking System Settings→Disk Management



F-3.4.1

Step2. Ensure that HDD has sufficient storage space.

Enter disk management interface by clicking System Setting → Disk Management. Select [Recycle Mode] to ON in the case of insufficient capacity of HDD.

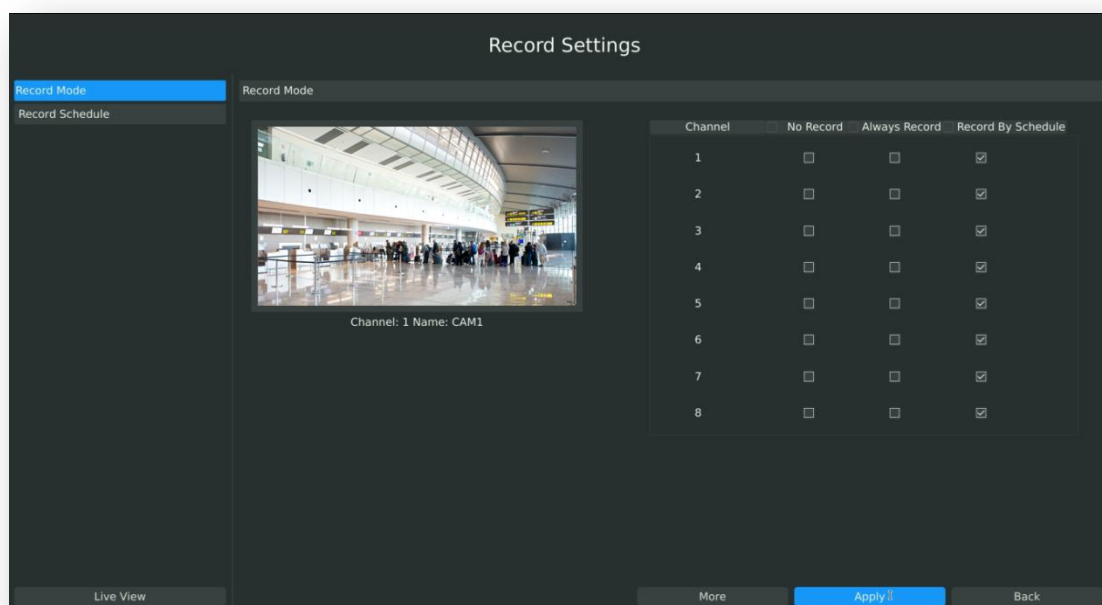


F-3.4.2

3.4.1 Record Mode

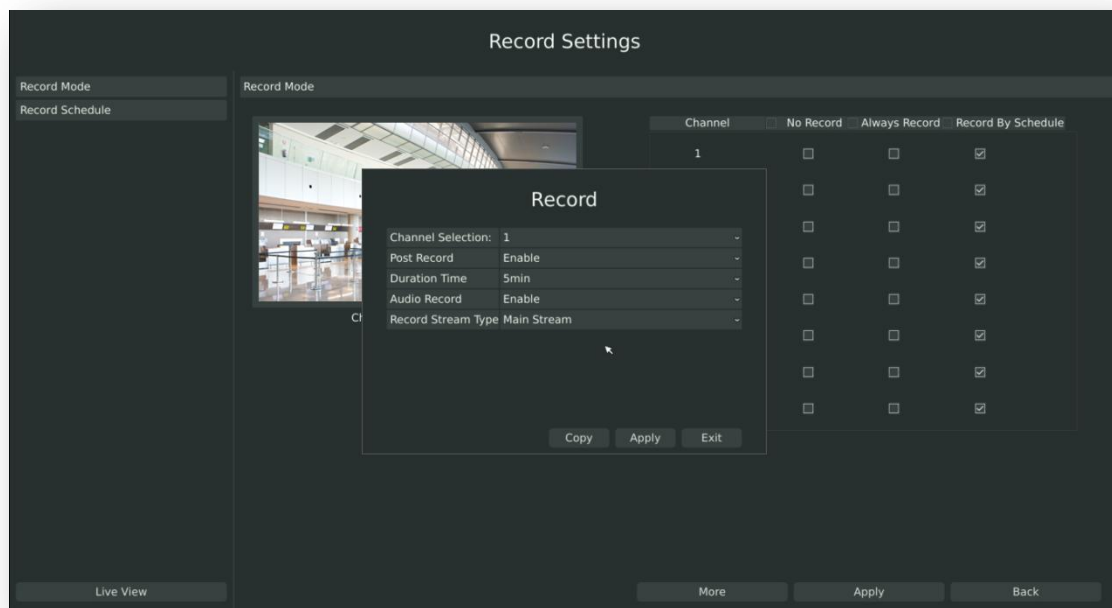
Step 1. Enter to record mode menu by clicking Main Menu→Record→Record Mode.

There are three record modes: No Recording/Always Record/Record by Schedule. You can select desired one to every channel.



F-3.4.3

Step2. Click [More] to setup recording general setting.



F-3.4.4

Illustration for Parameters

[Prev Record Enable]: Enable/Disable the event pre-record before event alarm.

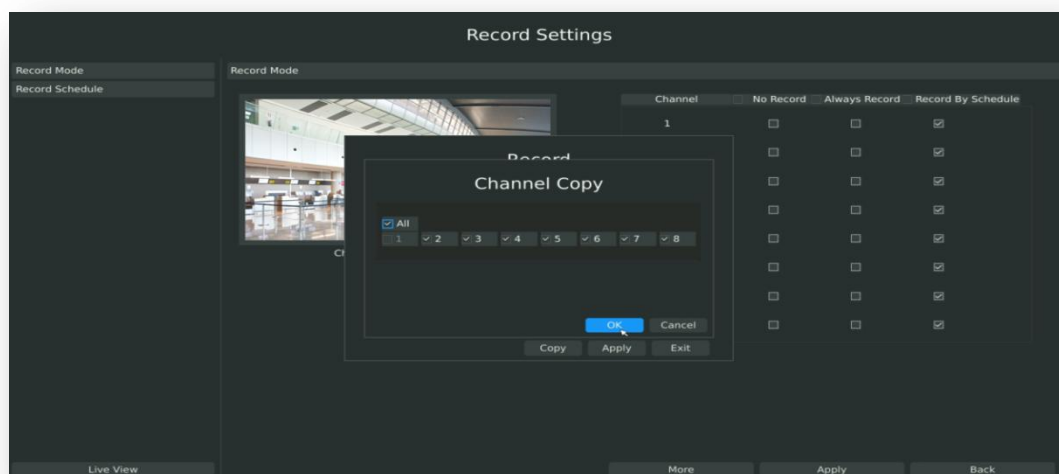
[Duration Time]: Event pre-record duration before event alarm

[Post Record Enable]: Enable/Disable post record after the event is over

[Audio Record]: Select to record audio or not

[Record Stream Type]: Select Main stream or sub stream for record

Step3. Click [Copy] to copy settings to other channels, and then click [OK].



F-3.4.5

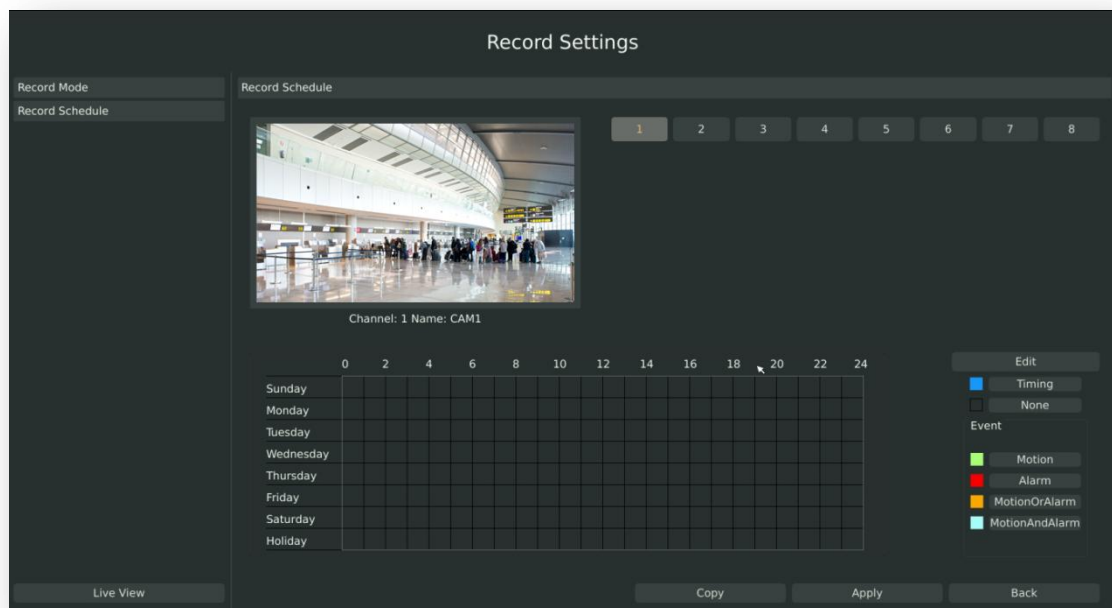
Step4. Click [Apply] to save the configuration

3.4.2 Record Schedule Setting

Note: The days are divided as Holiday/Sunday/Monday/Tuesday/Wednesday/Thursday/Friday/Saturday. The schedule of Holiday is superior to other days. To set the holiday information, go to Chapter.3.8.4.

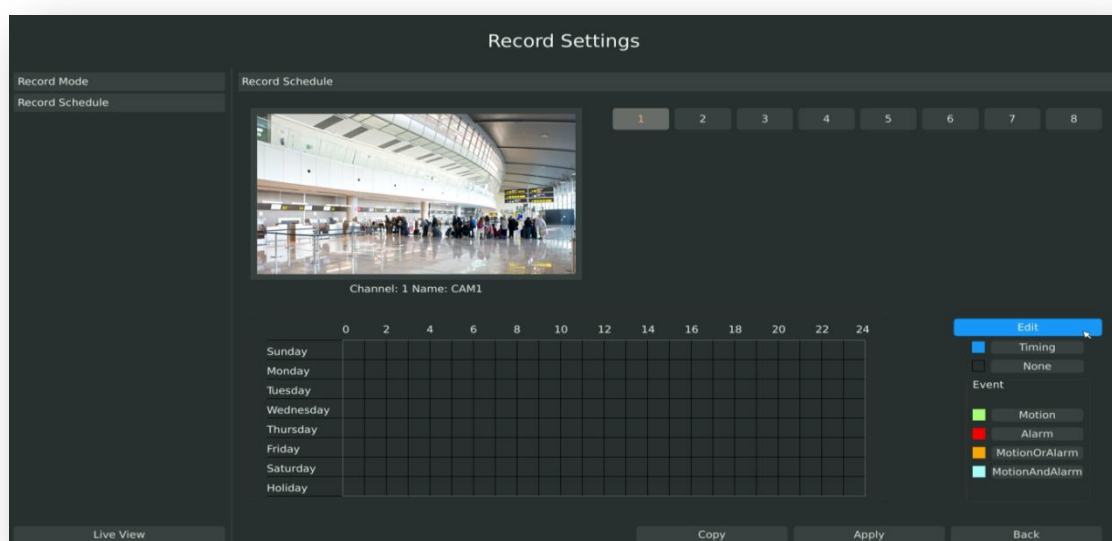
Method1. General Setting

Step1.Enter Record schedule interface by clicking Record Settings→Record Schedule



F-3.4.6

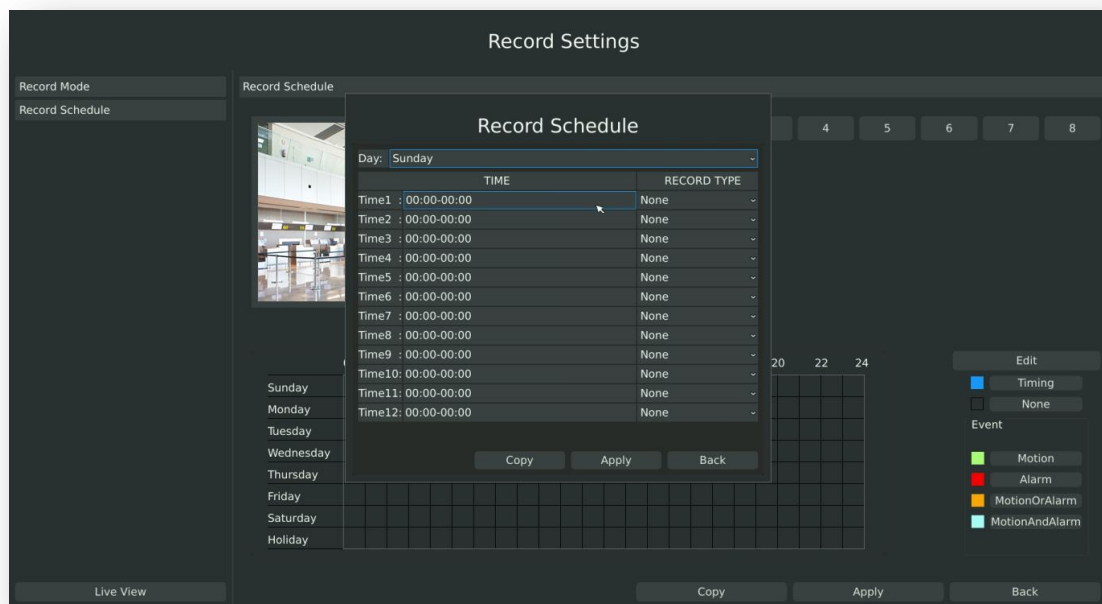
Step2.Select desired channel (eg. Channel 1)and click [Edit] button



F-3.4.7

Step3.Set record schedule

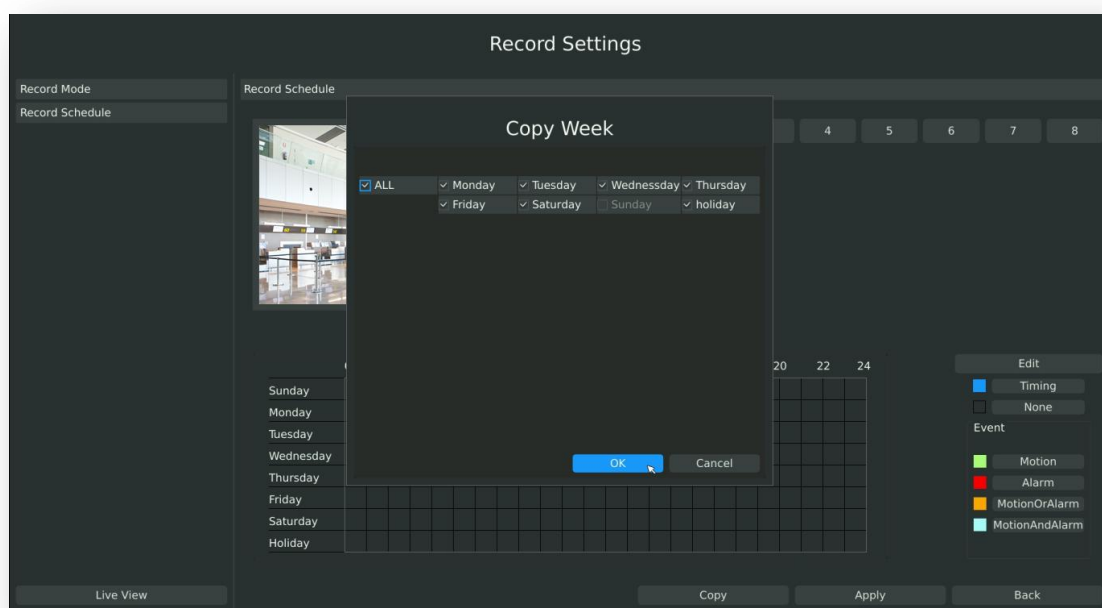
Select a day from the drop-down list of [Day], and select [Record Type] to setup the recording period, up to 12 periods can be set. (eg.01:00 to 05:00 for none recording; 06:00 to 18:00 for timing recording; 19:00 to 21:00 for Motion recording; 22:00 to 24:00 for Alarm recording)



F-3.4.8

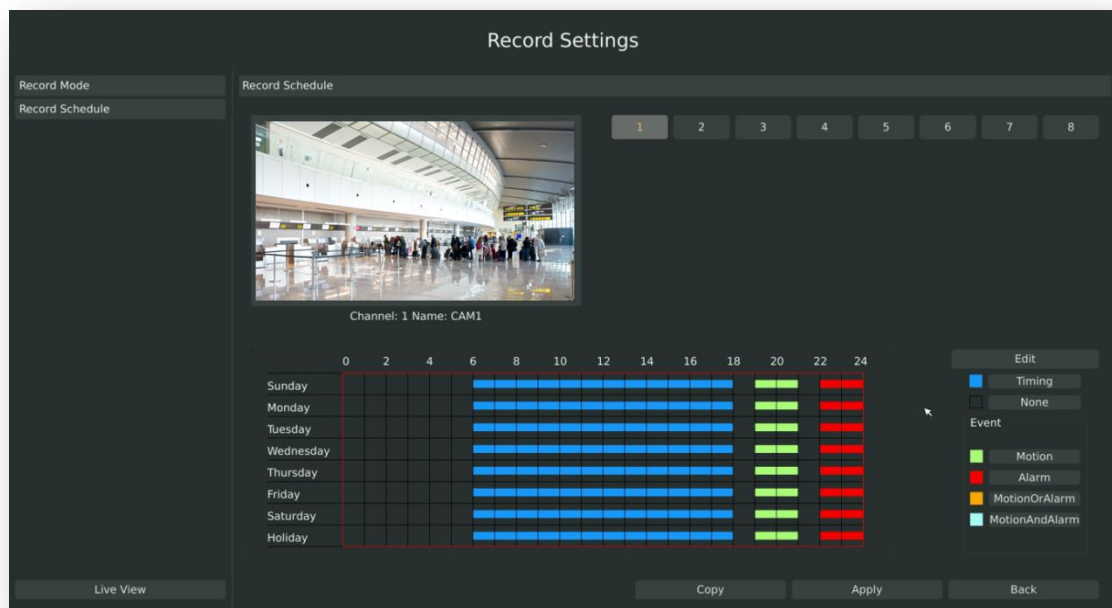
Note: Time periods cannot overlap with each other.

Step4.Click [Copy] to copy settings to other weekdays, and then click [Apply] to confirm the setting.



F-3.4.9

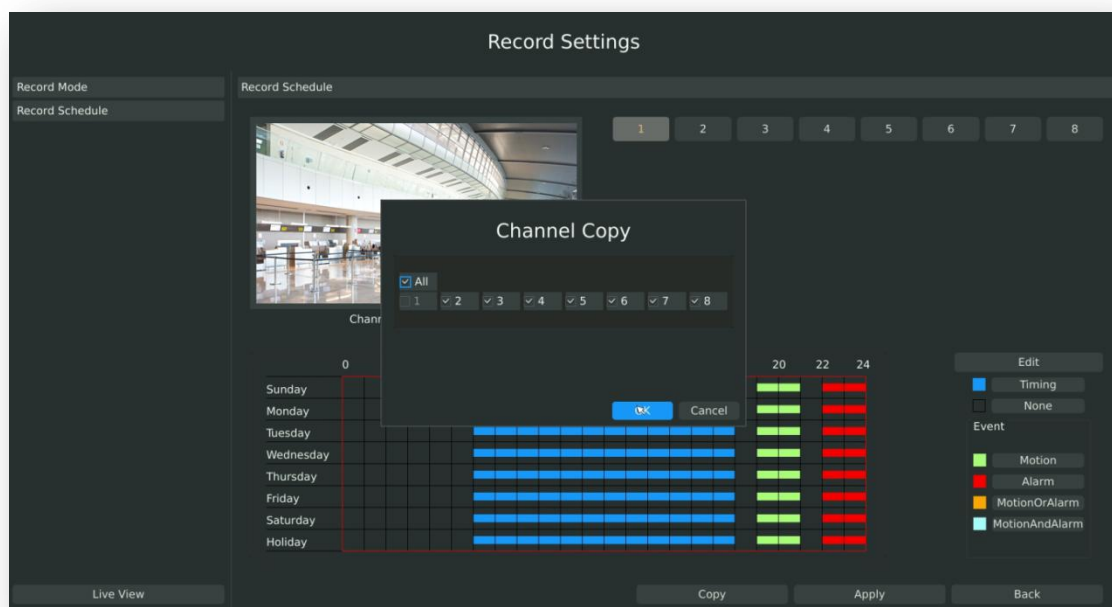
Step5.After above steps, this channel with show as below:



F-3.4.10

Step6.Copy the recording settings to other channels

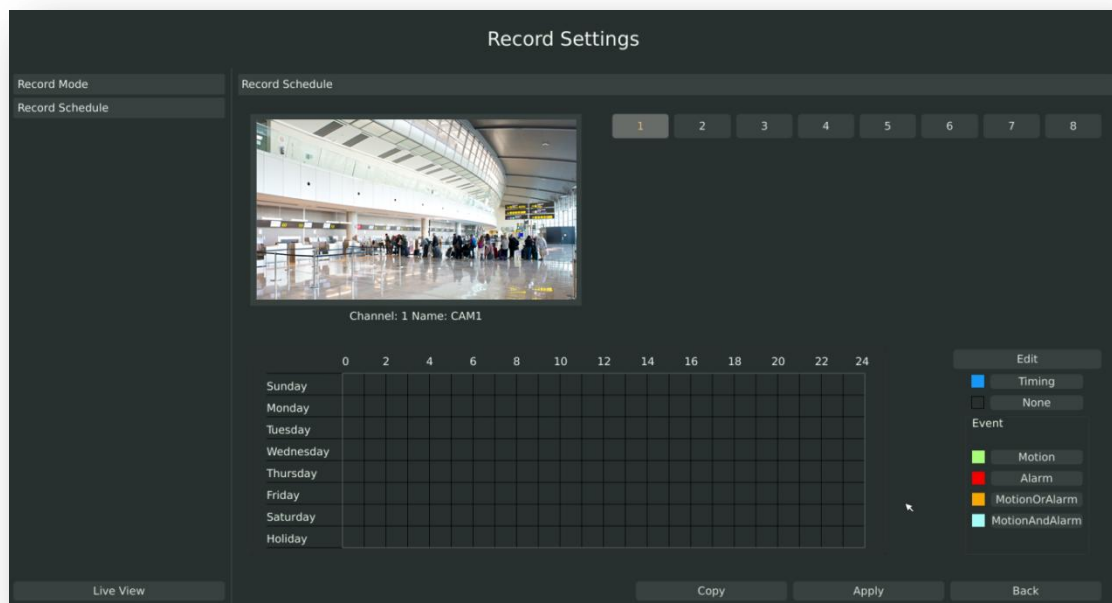
Select [Copy] to copy the same settings to other channels. And click [OK] to save the configuration.



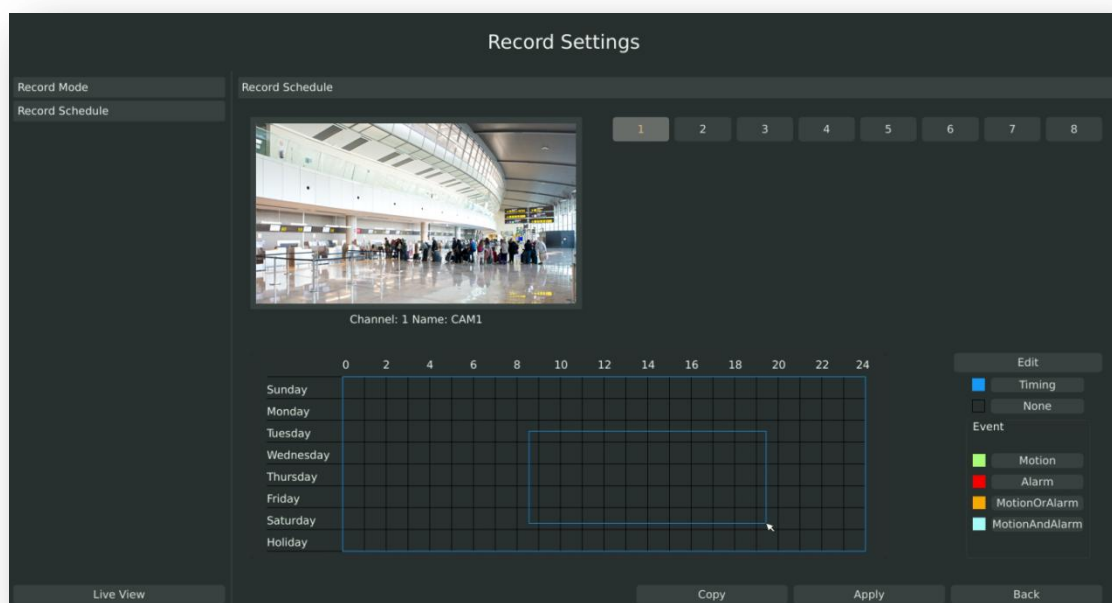
F-3.4.11

Step7.Save the configuration

Click [Apply] button to save the configuration, and then click [Back] to return to the previous menu.

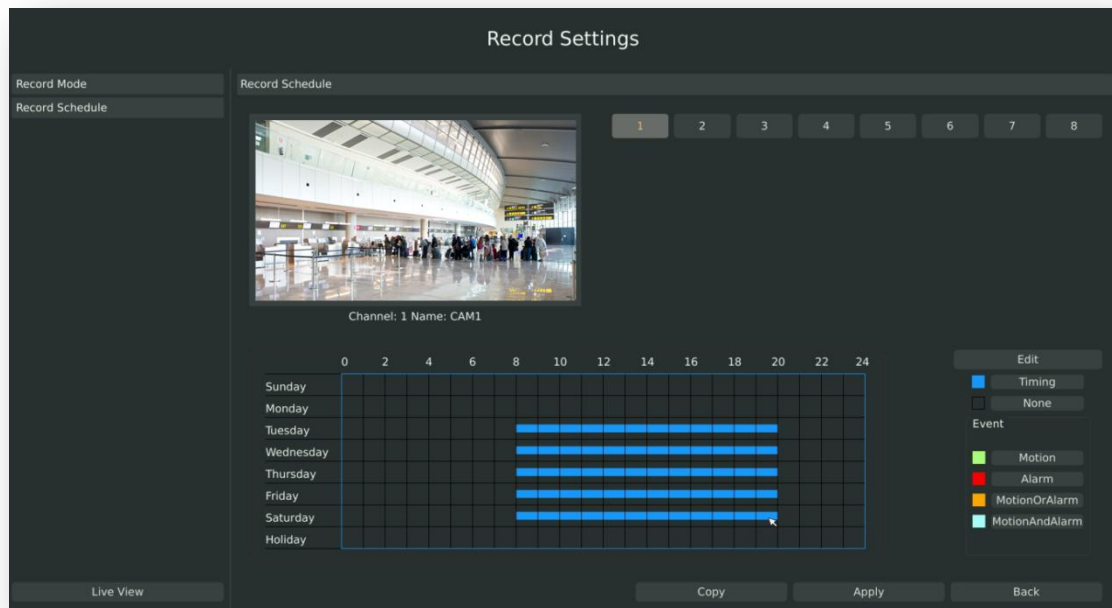
Method2.Set record schedule by drag the mouse**Step1.Enter Record schedule interface by clicking Record Settings→Record Schedule**

F-3.4.12

Step2.Click desired channel and record type show as below:

F-3.4.13

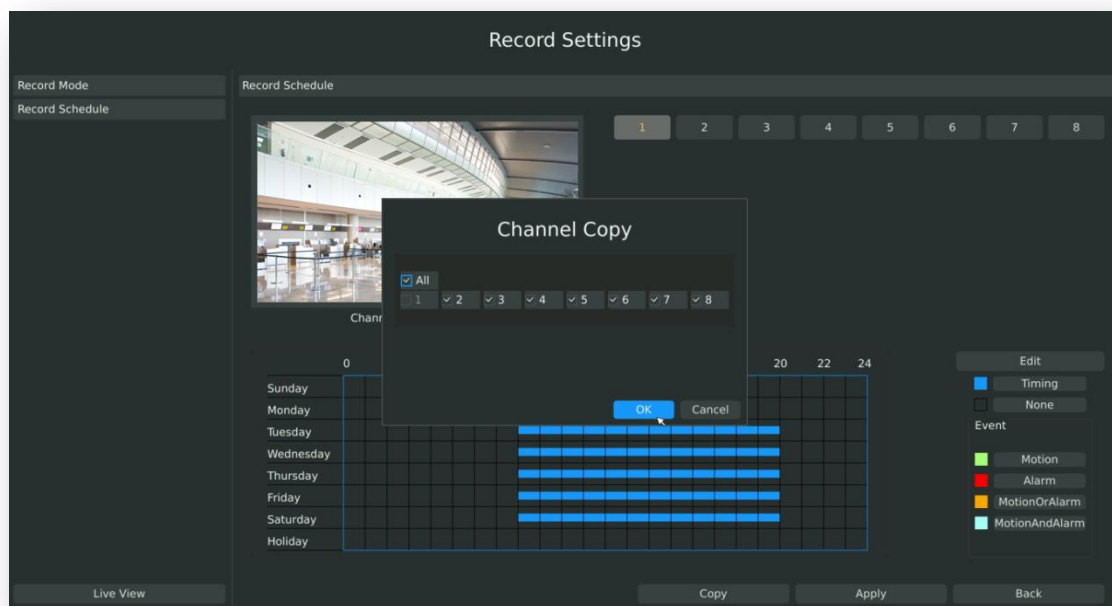
Step3.Drag the mouse to draw certain areas in recording setting zone and then click[Apply] to save the configuration.



F-3.4.14

Step4. Copy the recording settings to other channels.

Select [Copy] to copy the same settings to other channels. And click [OK] to save the configuration.



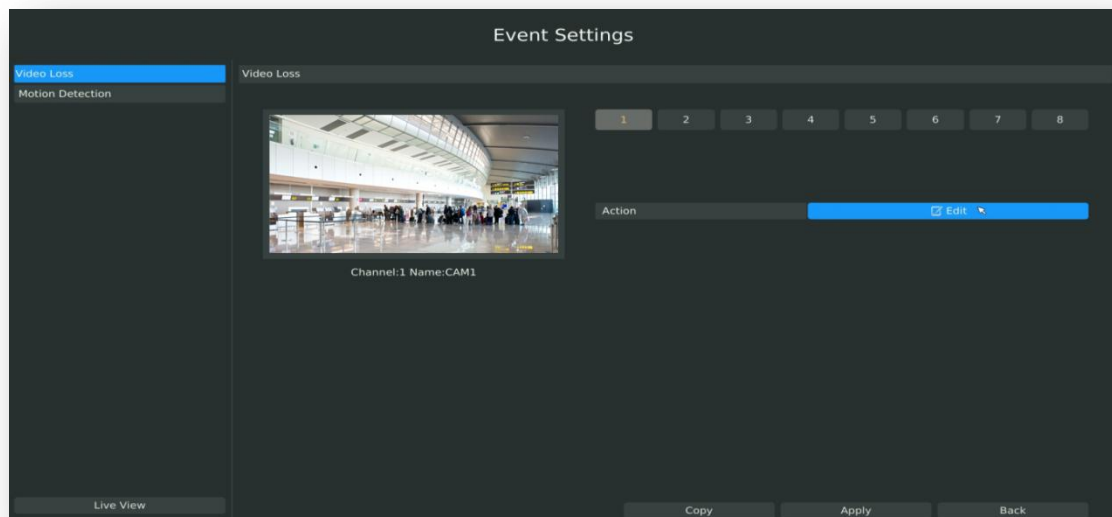
F-3.4.15

3.5 Event Settings

3.5.1 Video Loss Setting

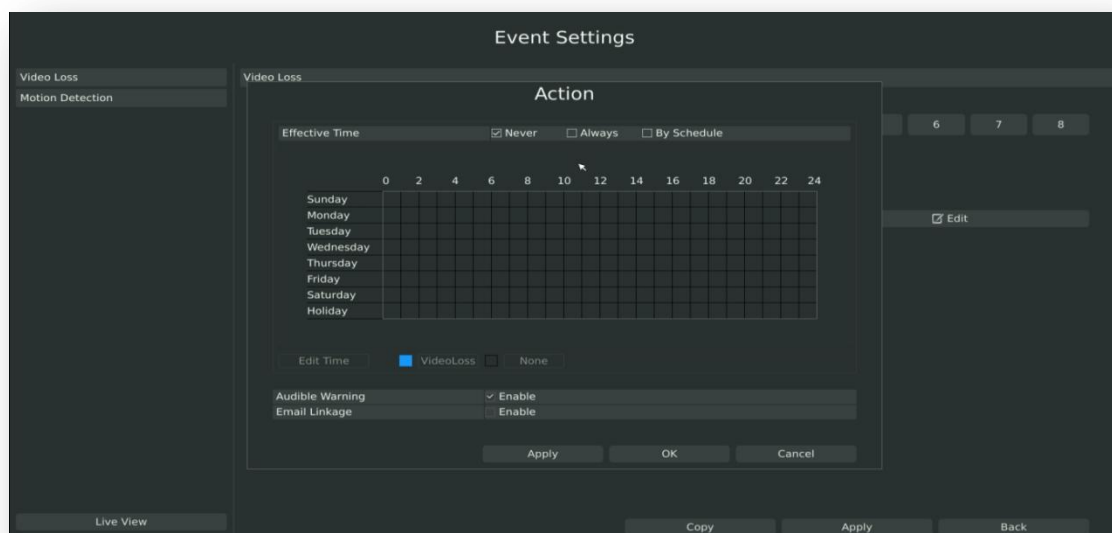
Your NVR can be setup to detect video loss and trigger an action.

Step1.Enter video loss configuration interface by clicking **Main Menu→Event→Video Loss** .



F-3.5.1

Step2.Select a desired channel and click [Edit] to configure video loss.



F-3.5.2

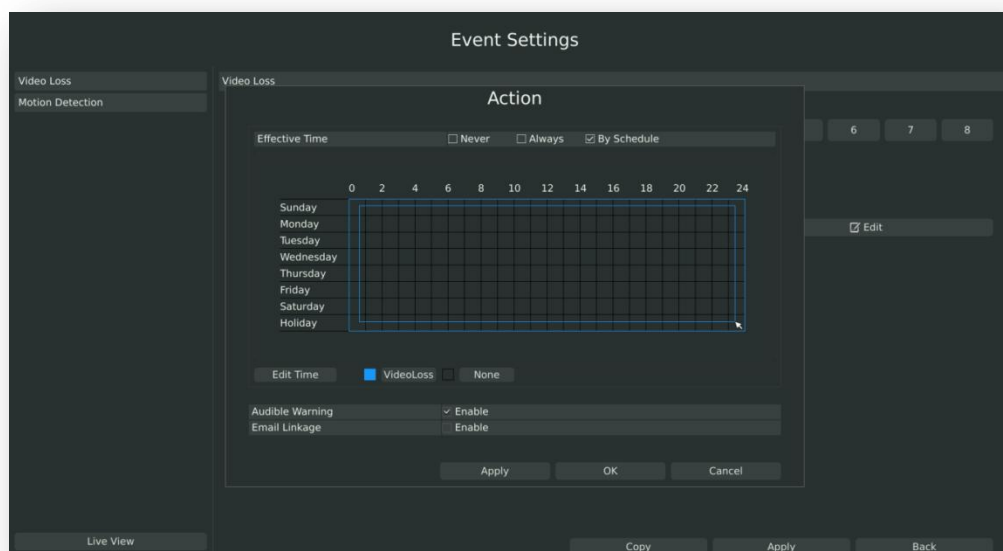
Step3.Select effective time to setup when you want to trigger actions once video loss is detected.

Effective Time ☒ Never ☐ Always ☐ By Schedule

[Never]: Your NVR will not trigger any actions when [Never] button is checked. No matter the [Audible Warning] or [Email Linkage] checkboxes are checked or not.

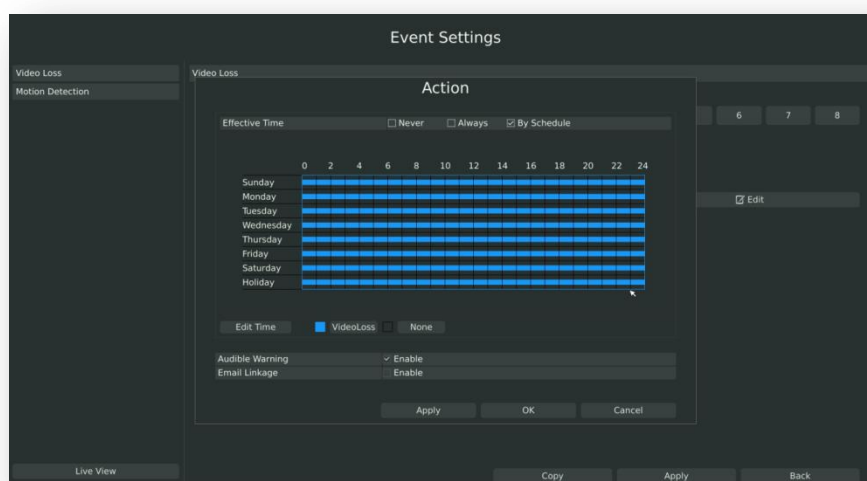
[Always]: Your NVR will always trigger actions when [Always] button is checked. Please make sure [Audible Warning] or [Email Linkage] is checked.

[By Schedule]: You can drag the mouse to draw certain area in schedule setting zone, show as below:



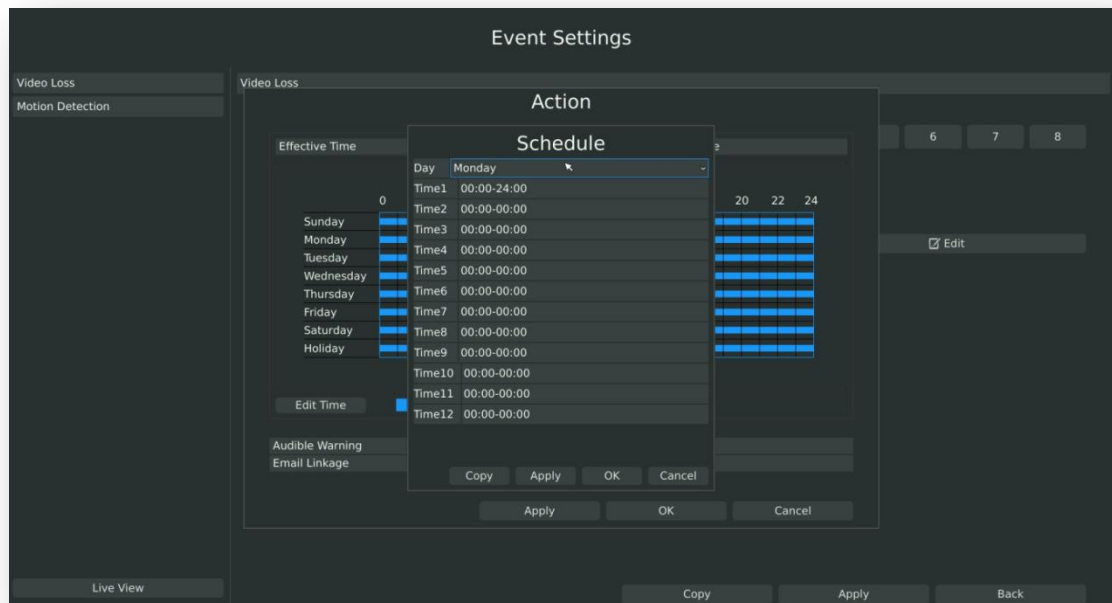
F-3.5.3

After dragging this will show as below:



F-3.5.4

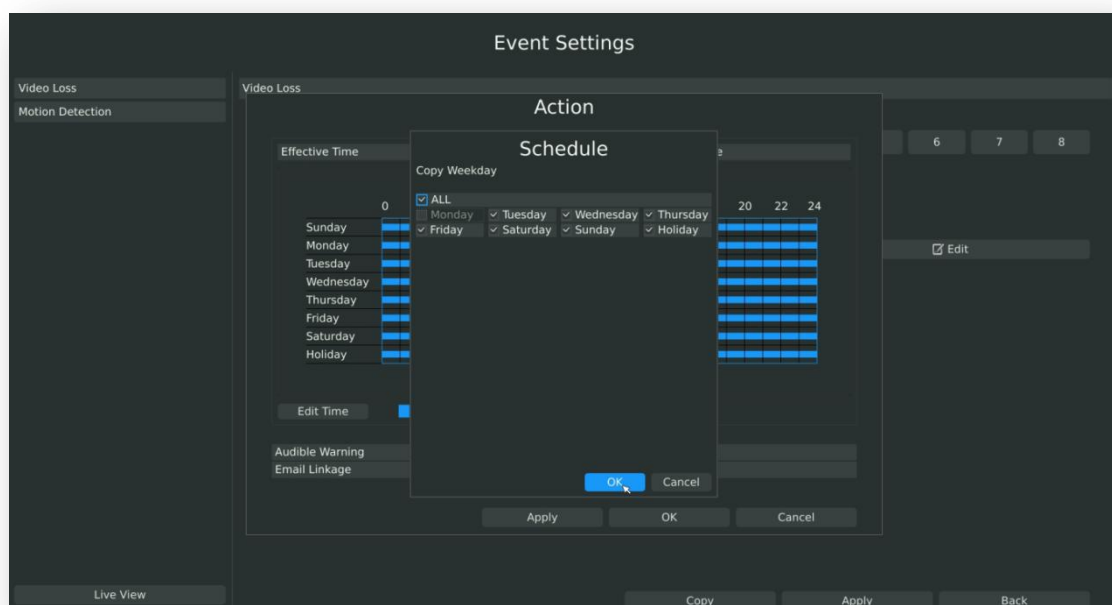
Or click [Edit Time] to set schedules. Schedule can be set for all week or any day of the week with up to 12 time periods per day. Video loss actions take effect in the scheduled period only.



F-3.5.5

Note: Time periods cannot overlap with each other.

Step4. Click [Copy] to copy the video loss schedule to other weeks, and then click [OK].



F-3.5.6

Step5: Select actions you want when video loss is detected.

Trigger Alarm Output	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> 4
Audible Warning	<input checked="" type="checkbox"/> Enable			
Email Linkage	<input checked="" type="checkbox"/> Enable			

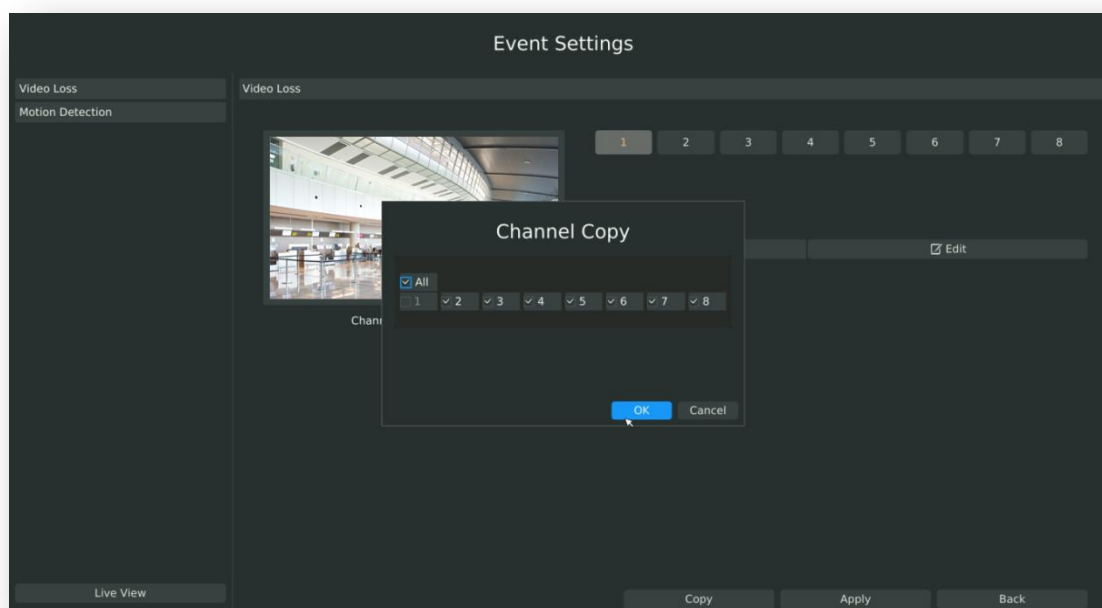
[Trigger Alarm Output]: Select whether trigger the alarm output or not when video loss is detected.

Audible Warning: Trigger an audible beep when video loss is detected

Email Linkage: Send video loss note to specified email address when video loss is detected.(Please refer to 3.8.2.4 *Mail configuration* for mail address setting)

Note: These actions will only take response according to effective time you choose

Step6. Click [OK] or [Apply] to confirm the settings. Repeat above steps for other channels. Or click [Copy] to copy settings to other channels.

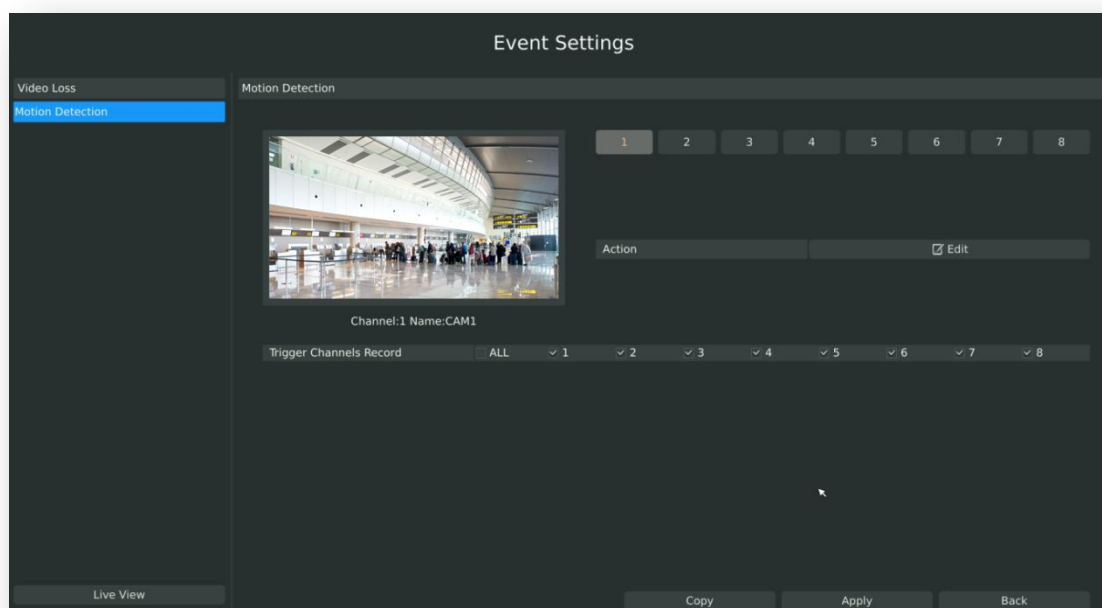


F-3.5.7

3.5.2 Motion Detection Setting

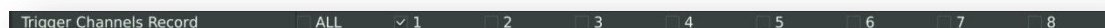
Your NVR can be setup to detect motion and trigger an action. Before configuration, please make sure your IP cameras have enable motion detection features.

Step1. Enter motion detection setting interface by clicking Main Menu→Event→Motion Detection.

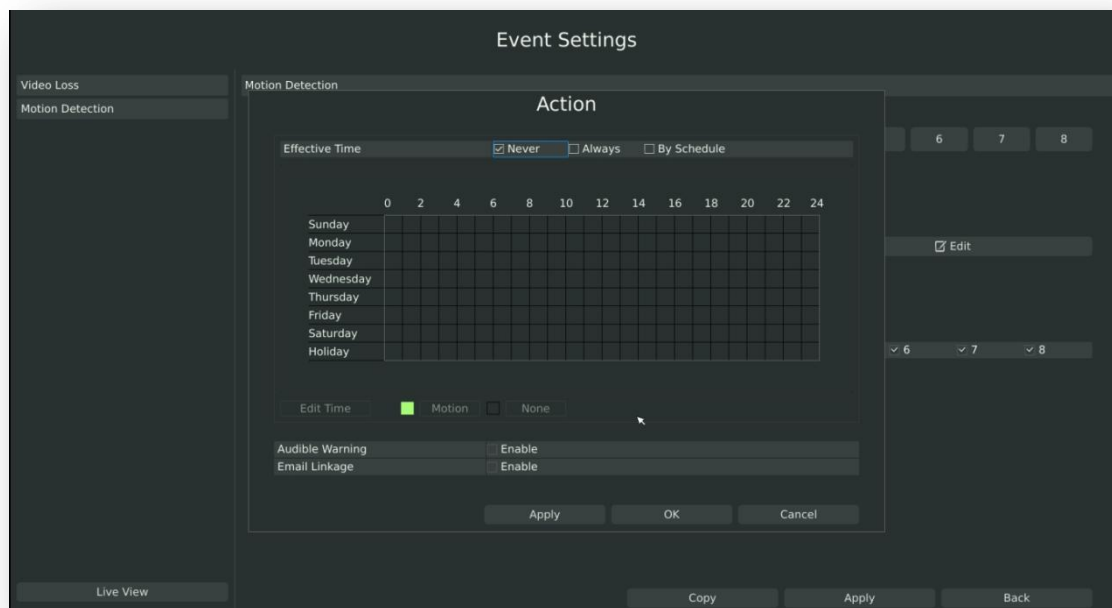


F-3.5.8

[Trigger Channels Record]: Select channels to trigger for recording when motion is detected by checking the checkboxes under the desired channels. Please make sure other channels has setup motion recording schedule.



Step2. Select the desired channel and click [Edit] to configure motion detection.



F-3.5.9

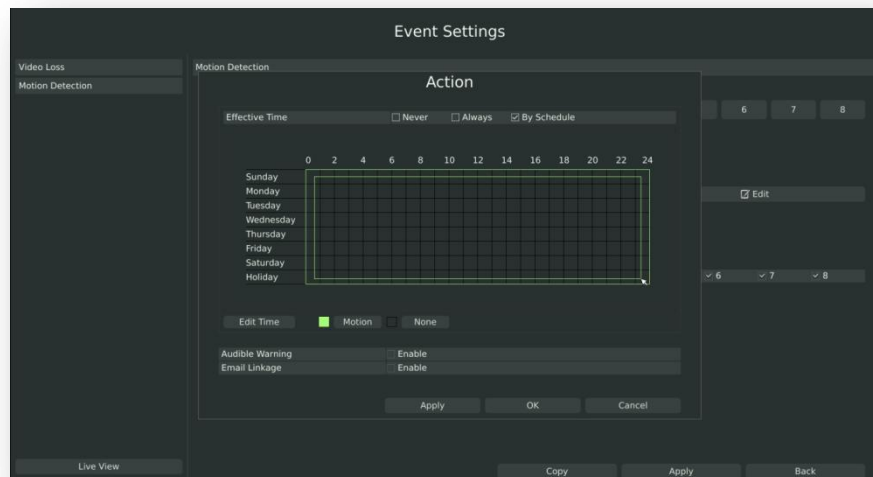
Step3. Select effective time to setup when you want to trigger actions once motion is detected.



[Never]: Your NVR will not trigger any actions when [Never] button is checked. No matter the [Audible Warning] or [Email Linkage] checkboxes are checked or not.

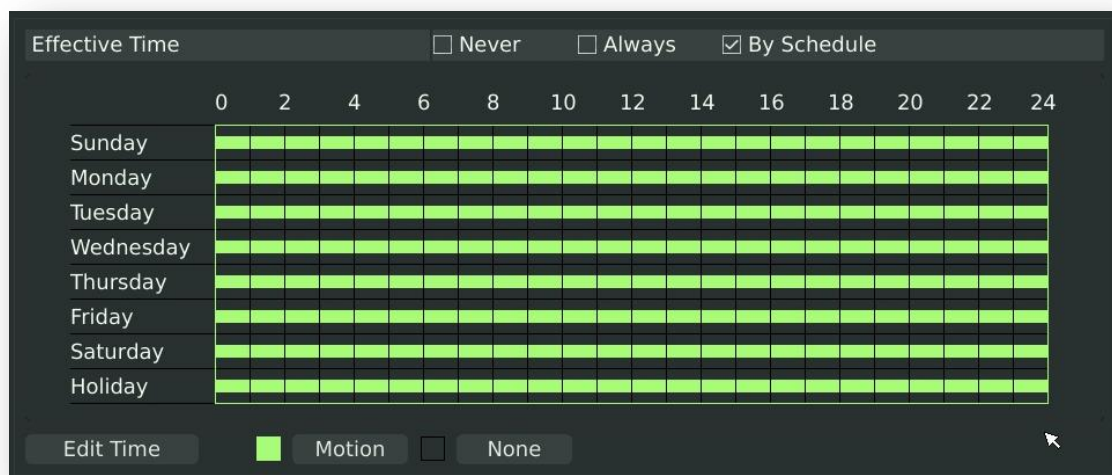
[Always]: Your NVR will always trigger actions when [Always] button is checked. Please make sure [Audible Warning] or [Email Linkage] is checked.

[By Schedule]: You can drag the mouse to draw certain area in schedule setting zone, show as below:



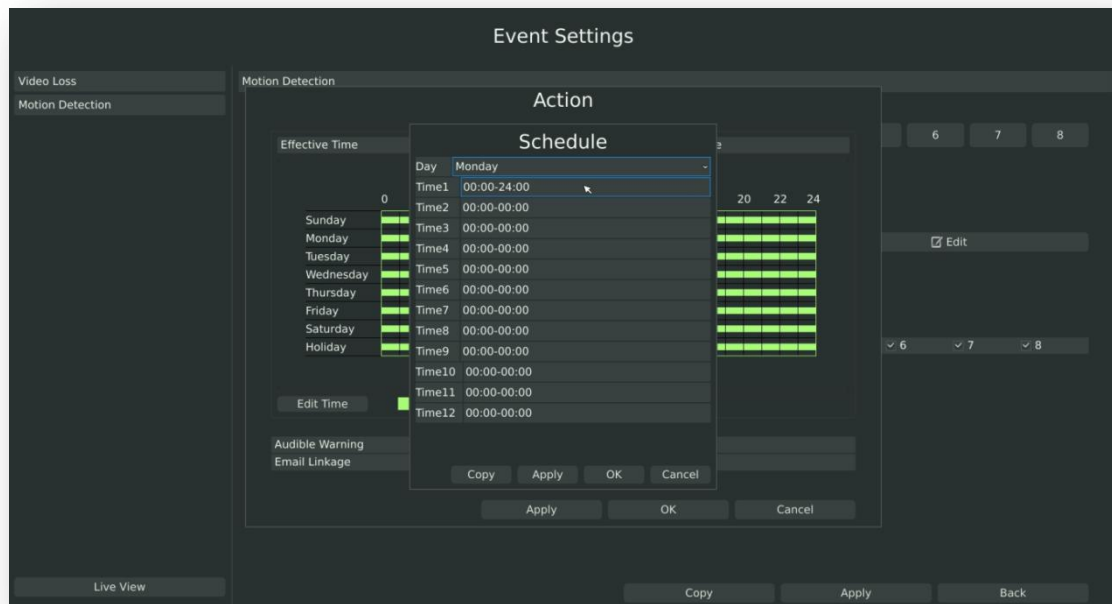
F-3.5.10

After dragging, this channel will show as below:



F-3.5.11

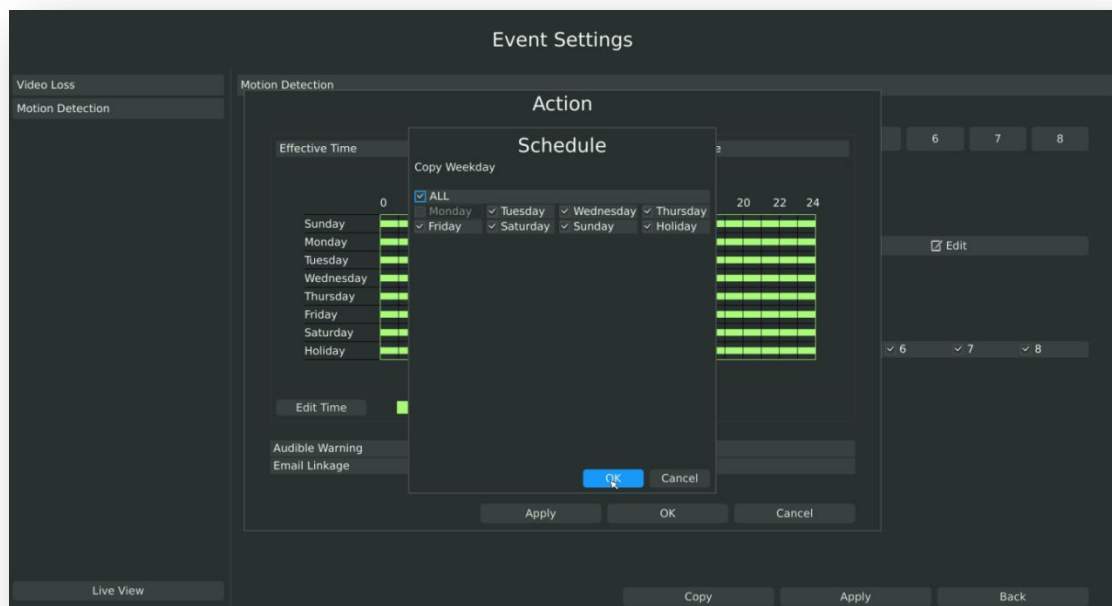
Or click [Edit Time] to setup schedules. Schedule can be set for all week or any day of the week with up to 12 time periods per day. Motion detection actions take effect in the scheduled period only.



F-3.5.12

Note: Time period cannot overlay with each other

Step4. Click [Copy] to copy the motion detection schedules to other weekdays.



F-3.5.13

Step5. Select actions you want when motion is detected

Audible Warning	<input checked="" type="checkbox"/> Enable
Email Linkage	<input checked="" type="checkbox"/> Enable

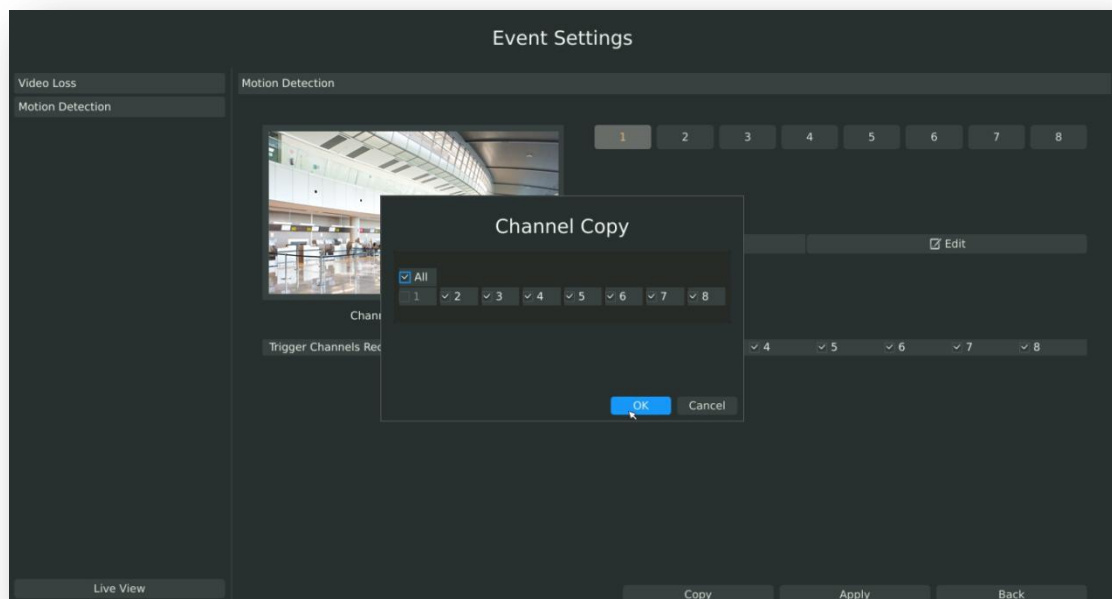
[Audible Warning]: Trigger an audible beep when motion is detected

[Email Linkage]: Send motion detection note to specified email address when motion is detected.

(Please refer to 3.8.2.4 Mail configuration for mail address setting)

Note: These actions will only take response according to effective time you choose

Step6. Click[Apply] or [OK] to confirm settings. Repeat above steps to other channel. Or click [Copy] to copy settings to other channel.



F-3.5.14

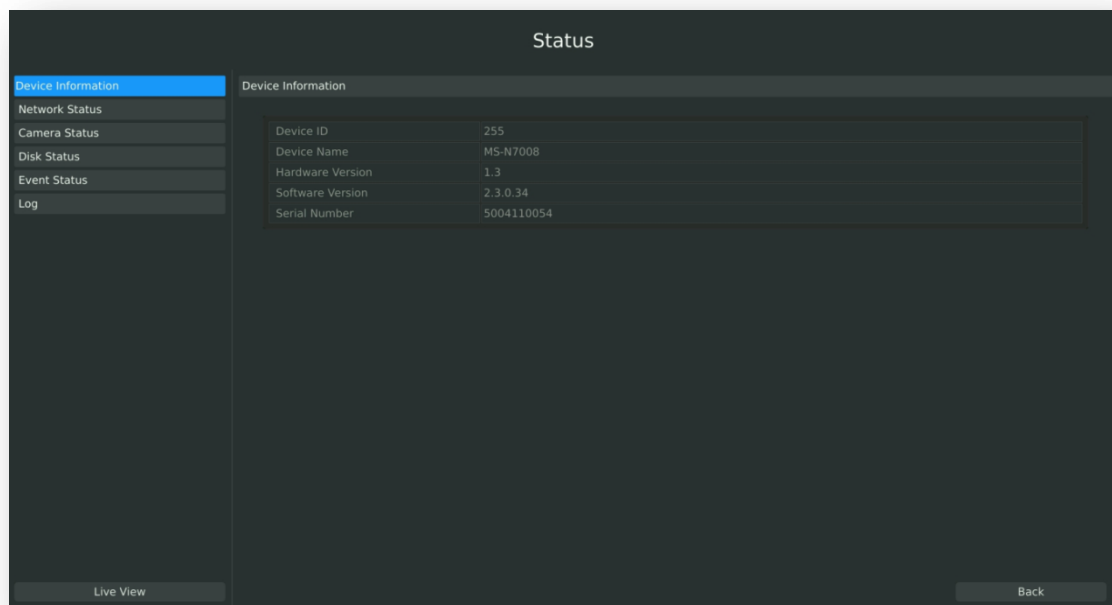
3.6 State

You can have a quick view of the information of the device, network, camera, disk and event. This part is only for your rapid reference. If you want to make any configuration, please go to corresponding parts accordingly.

3.6.1 Device Information

Step: Enter Device information menu by clicking Main Menu→State→Device Information

It will show you information in F-3.6.1, including: Device ID, Device Name, Hardware Version, Software Version, and Serial Number.

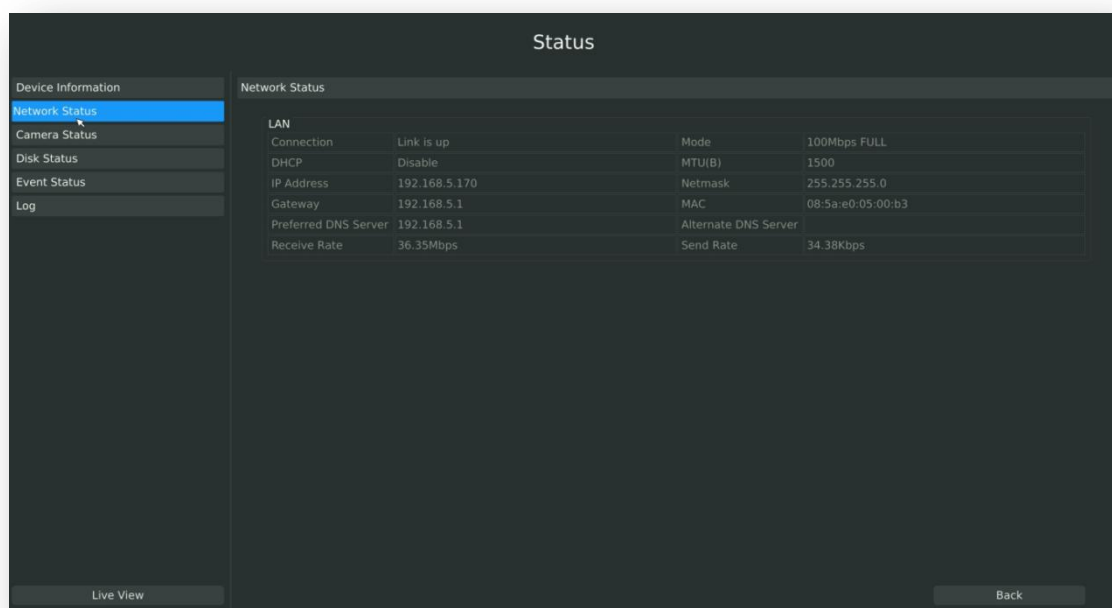


F-3.6.1

3.6.2 Network Status

Step: Enter Network Status menu by clicking Main Menu→State→Network Status

It will show you information in F-3.6.2, including: Connection, Mode, DHCP, MTU(B), IP Address, Net mask, Gateway, MAC, Preferred DNS Server, Alternate DNS Server, Receive Rate, and Send Rate.



F-3.6.2

3.6.3 Camera Status

Step: Enter camera status menu by clicking Main Menu→State→Camera Status

It will show you information in F-3.6.3, including: Channel, Name, Enable, IP Address, Record, Frame Rate, Bitrate, Resolution and State.

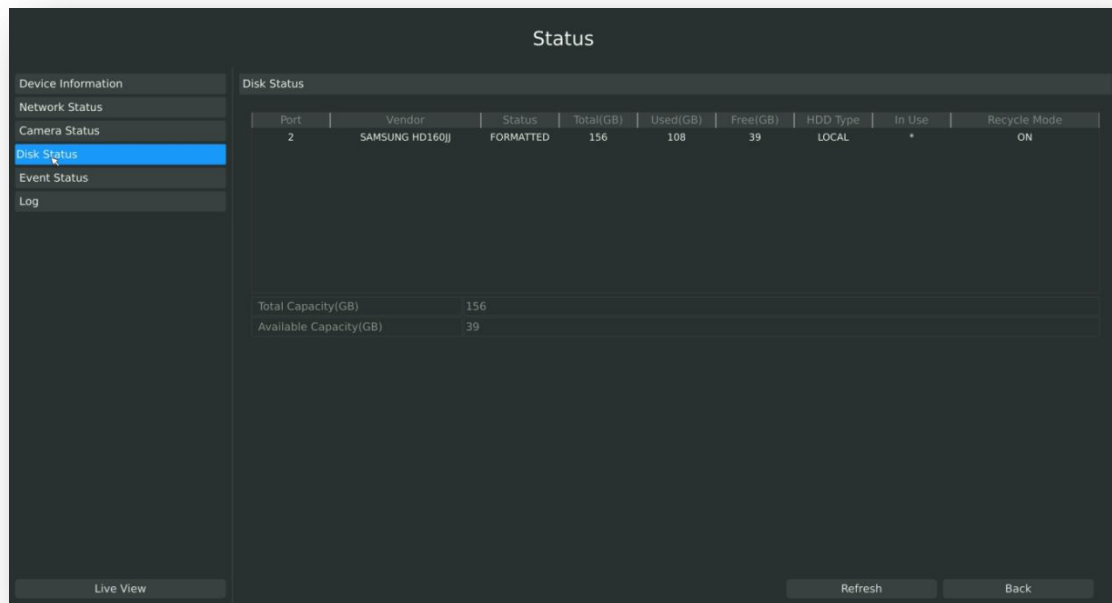
Status									
Device Information Network Status Camera Status Disk Status Event Status Log	Camera Status								
	Channel	Name	Enable	IP Address	Record	Frame Rate	Bitrate	Resolution	Status
	1	CAM1	Enable	192.168.5.152	OFF	25fps	3990Kbps	1920x1080	Connected
	2	CAM2	Enable	192.168.5.133	OFF	25fps	5580Kbps	1920x1080	Connected
	3	CAM3	Enable	192.168.5.169	ON	25fps	6134Kbps	1280x720	Connected
	4	CAM4	Enable	192.168.5.196	ON	24fps	4163Kbps	1280x1024	Connected
	5	CAM5	Enable	192.168.5.162	ON	25fps	4126Kbps	1920x1080	Connected
	6	CAM6	Enable	192.168.5.168	ON	7fps	5105Kbps	1280x720	Connected
	7	CAM7	Enable	192.168.5.189	ON	24fps	4060Kbps	1920x1080	Connected
	8	CAM8	Disable	--	--	--	--	--	--

F-3.6.3

3.6.4 Disk Status

Step: Enter disk status menu by clicking Main Menu→State→Disk Status

It will show you information in F-3.6.4, including: Port, Vendor, State, Total(GB), Free(GB), HDD Type, In Use, and Recycle Mode. You can see the Total Capacity (GB) and Available Capacity (GB) as below:



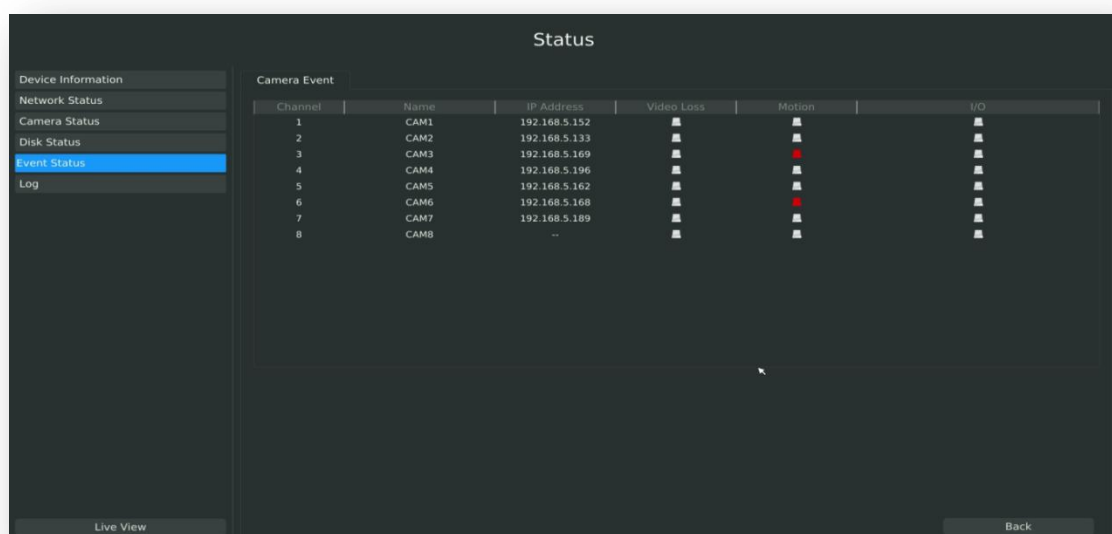
F-3.6.4

3.6.5 Event Status

3.6.5.1 Alarm Status

Step: Enter alarm page by clicking Main Menu→State→Event Status


It will show you the Alarm Input List in F-3.6.5.



























F-3.6.5

3.6.5.2 Camera Event Status

Step: Enter camera event page by clicking Main Menu→State→Event Status.

It will show you the camera event status in F-3.6.6. If the  shows in red, it means the corresponding project is active.

Status						
Camera Event						
Channel	Name	IP Address	Video Loss	Motion	I/O	
1	CAM1	192.168.5.133				
2	CAM2	192.168.5.168				
3	CAM3	192.168.5.152				
4	CAM4	192.168.5.193				
5	CAM5	192.168.5.104				
6	CAM6	192.168.5.105				
7	CAM7	192.168.5.191				
8	CAM8	192.168.5.190				





F-3.6.6

3.7 Live View Settings

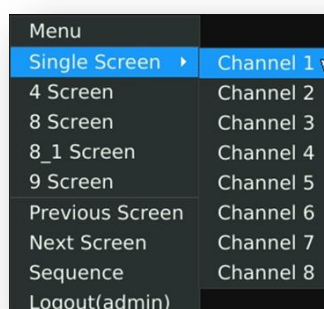
3.7.1 Live View

Watching a Live View

There are multiple icons on each channel displayed in live view mode, indicating the recording and alarm status of the channel.

Icons	Descriptions
	Indicates video loss or tampering alarm
	Indicates motion detection alarm
	Indicates the current channel is recording. The recording may have been started manually, from a schedule, motion detection, alarm, and/or triggered from motion and alarm.
	Indicates exception alarm and recording.

Use the Right Button of the Mouse in Live View



F-3.7.1

Item	Description
Menu	Enter main menu
Single Screen	The channel chosen will spread the whole screen. You could also reveal this function by double clicking the channel.
Sub Screen Ctrl	Switch to sub screen to operate.
Previous Screen	Switch to the previous screen
Next Screen	Switch to the next screen
Sequence	Enable single/multi-screen cruise in live view mode
Sub Sequence	Enable single/multi-screen cruise in AUX live view mode
Logout	Click it to logout current user account.

Quick Operation for Live View

Enter the live view interface; left click the channel, the quick menu will appear.

Quick menu operations include playback, recording manually, snapshot, PTZ, zoom, and image configuration.

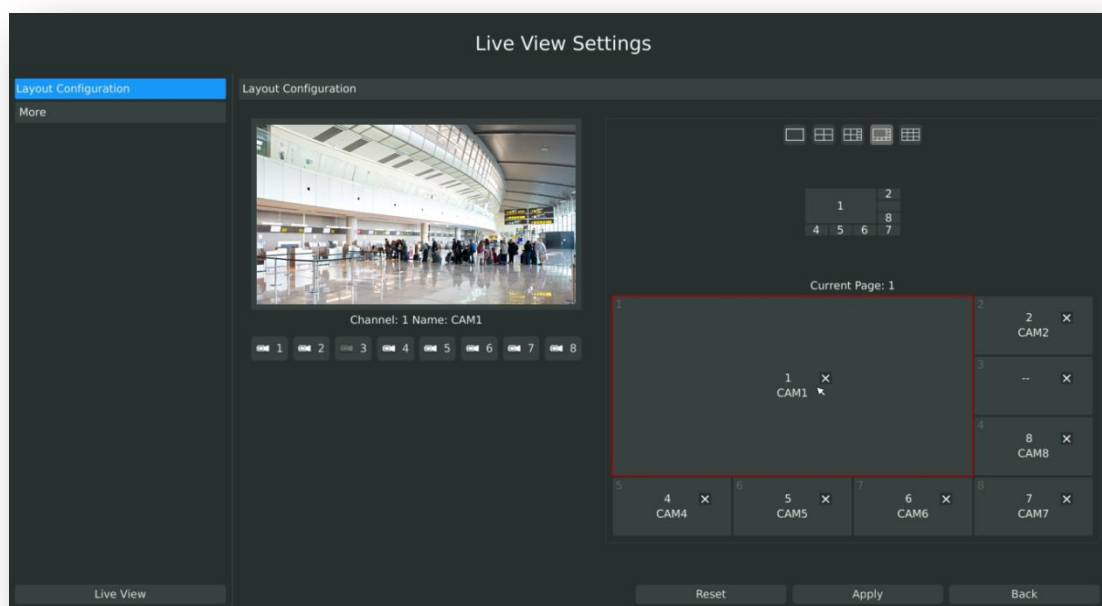
Quick Menu Instructions for Main Output Live View



Icon	Description	Icon	Description	Icon	description
	Manually recording		Image configure		PTZ Control
	Sound on/off		Digital zoom		Snapshot by manually
	Close				

3.7.2 Layout Configuration

Step1: Enter layout configuration menu by clicking Main Menu→Live View→Layout configuration



F-3.7.2

You can choose single screen/4/ 8 /8-1/9 screens for layout configuration according to your needs and preferences.

Step2. Click to close a channel, or click a desired channel (shown F-3.7.3) to add in and then click “Apply” to confirm settings. Click “Reset” to reset the layout.

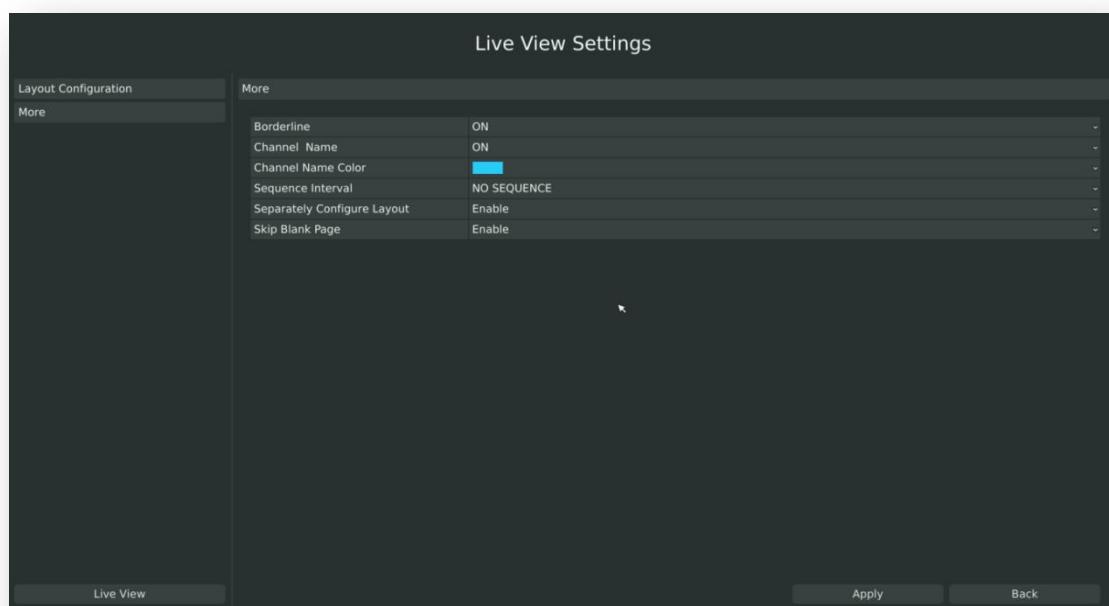


F-3.7.3

3.7.3 More Settings

Live View Parameters Settings

Step: Enter the more setting interface by clicking **Main Menu**→**Live View**→**More**



F-3.7.4

Item	Description
Borderline	Borderline ON/OFF
Channel Name	Display the channel name
Channel Name Color	To change the color of the channel name
Sequence Interval	Set sequence interval in live view mode
Separately Configure Layout	To configure channel order of all layouts respectively
Skip Blank Page	Skip blank page in sequence mode

3.8 System Settings

3.8.1 General Setting

Step: Enter general menu by clicking Main Menu→System Settings→General

To setup the general parameters of NVR, including modify the host name, device ID, select resolution, and set system time manually, etc.

The screenshot shows the 'System Settings' window with the 'General' tab selected. On the left is a sidebar menu with options: General, Network, Disk Management, Holiday Configuration, User, Upgrade, and Save/Load Configuration. The main area displays a list of settings for the 'General' tab. At the bottom of the window are three buttons: 'Live View', 'Apply', and 'Back'.

General	
Host Name	NVR
Device ID	255
HDMI Resolution	1920X1080/60HZ
HDMI Audio	Enable
Audio Out Volume	60%
Boot Wizard	Enable
Local Authentication	Enable
Menu Authentication	Disable
Menu Timeout	--
Server Time	2014.04.02. PM 05:58:36
Time Zone	8 China (Beijing)
Daylight Saving Time	Disable
Date Format	MM-DD-YYYY-AM/PM
Time Setting	Automatically Synchronize With an Internet Time Server
NTP Server	pool.ntp.org

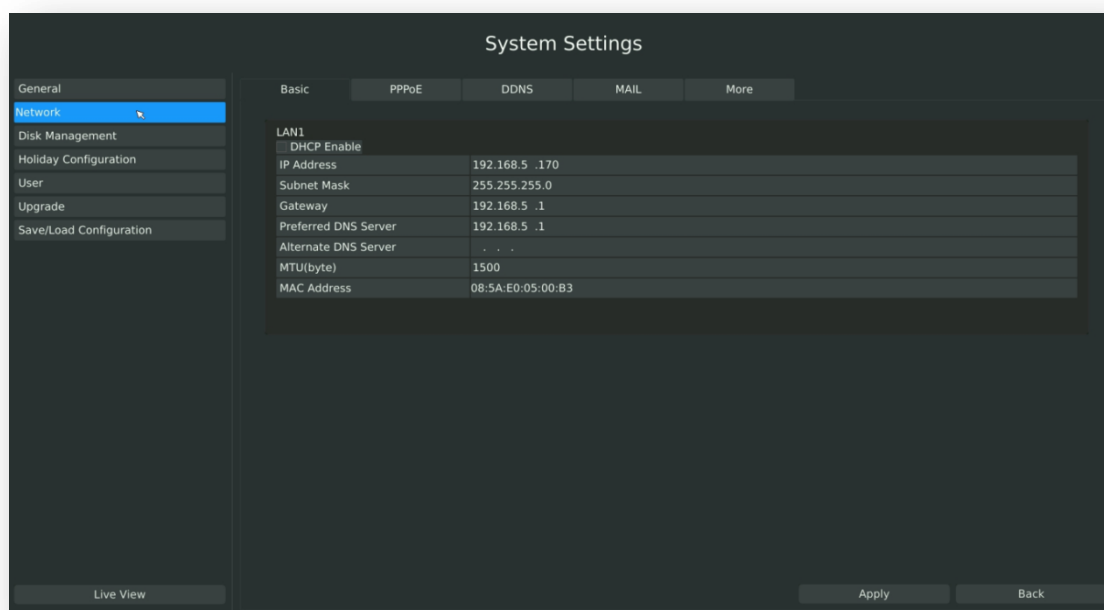
F-3.8.1

3.8.2 Network Settings

3.8.2.1 Basic Configuration

Step: Enter the network setting menu to set the network parameters by clicking Main Menu→System Settings→Network, select “Basic” page

Basic configuration includes working mode, IP address, subnet mask, gateway, MTU, DNS server, etc.



F-3.8.2

Notes:

1. Check the DHCP checkbox if there has a DHCP server running in networks.
2. The valid range of MTU is 500~9676.
3. Do not input an IP address conflict with another device.

3.8.2.2 PPPOE Configuration

Step: Enter PPPOE menu by clicking Main Menu→System Settings→Network. Select “PPPOE” page

Check the PPPoE checkbox to enable the feature, and then input user name, password and confirm password for PPPoE access.

The screenshot displays the 'System Settings' interface with the 'PPPoE' tab selected. On the left is a sidebar menu with options: General, Network, Disk Management, Holiday Configuration, User, Upgrade, and Save/Load Configuration. The main area contains the following configuration fields:

Basic	PPPoE	DDNS	MAIL	More
PPPoE Enable: Enable				
User Name: sdlk				
Password:				

At the bottom right, there are 'Apply' and 'Back' buttons. A 'Live View' button is located at the bottom left of the main area.

F-3.8.3

Note:

PPPoE user name and password can be obtained from your service provider. Once the setup is completed, a connected status will be shown.

3.8.2.3 DDNS Configuration

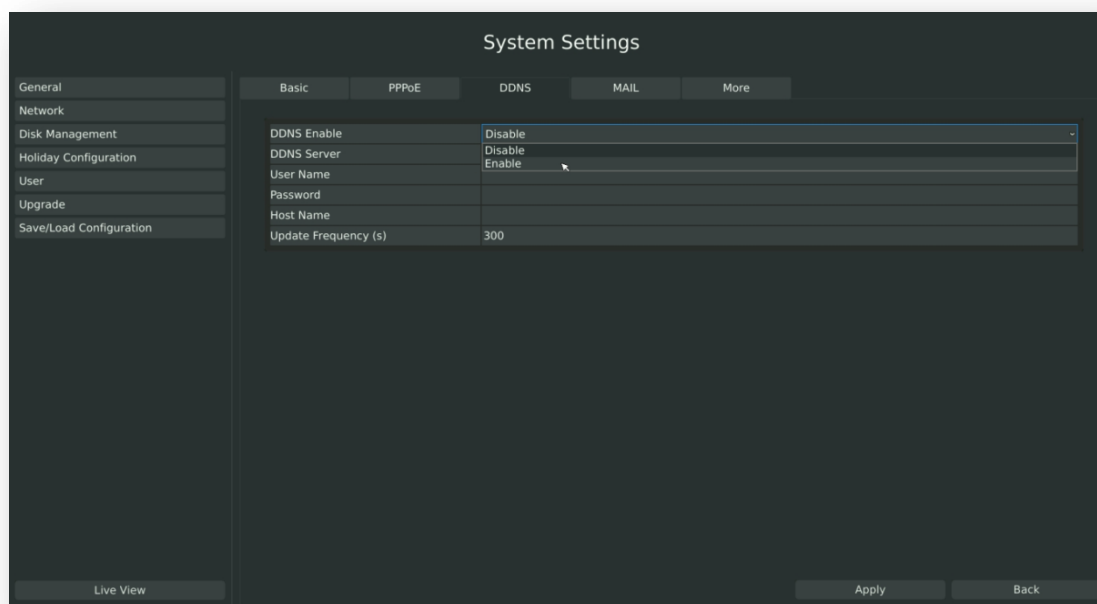
If your NVR is setup to use PPPoE to connect public network, you may need to use DDNS (Dynamic Domain Name System) to solve the problems from dynamic IP address.

Steps: Enter DDNS configuration menu by clicking Main Menu→System Settings→Network, Select “DDNS” page

Check the DDNS checkbox to enable the feature. Select “DDNS Server”, and input username, password and host name, and then confirm.

Click [Apply] for application.

Note: “host name” can use letters, figures and hyphen (-), and must begin with letters.



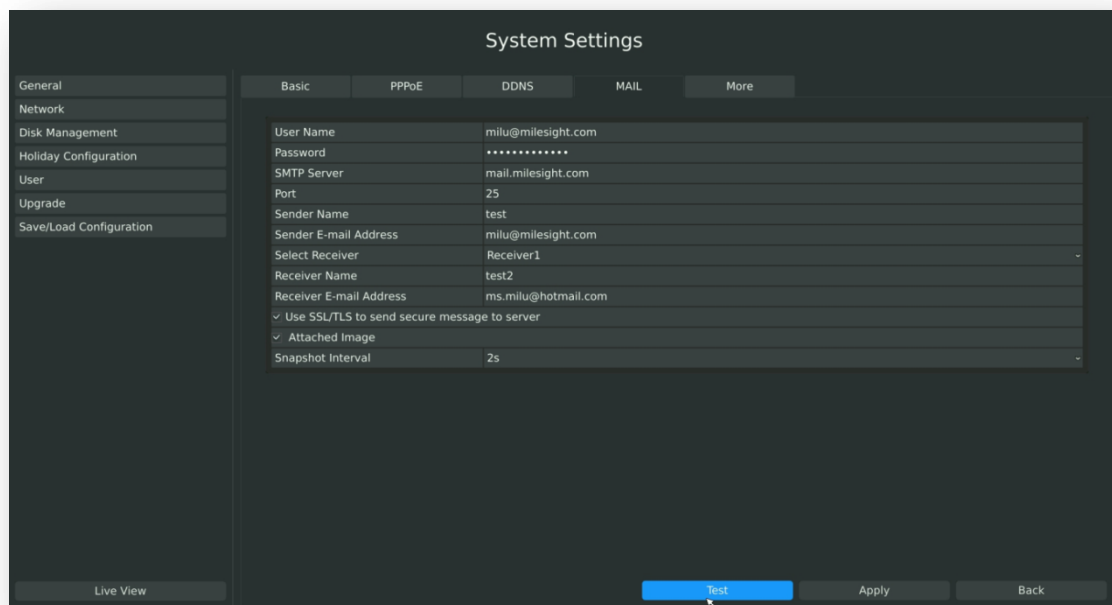
F-3.8.4

3.8.2.4 MAIL Configuration

Check if the SMTP port can be set or not. Please enable SSL/TLS according to actual mailbox. (Some SMTP server needs to secure connection)

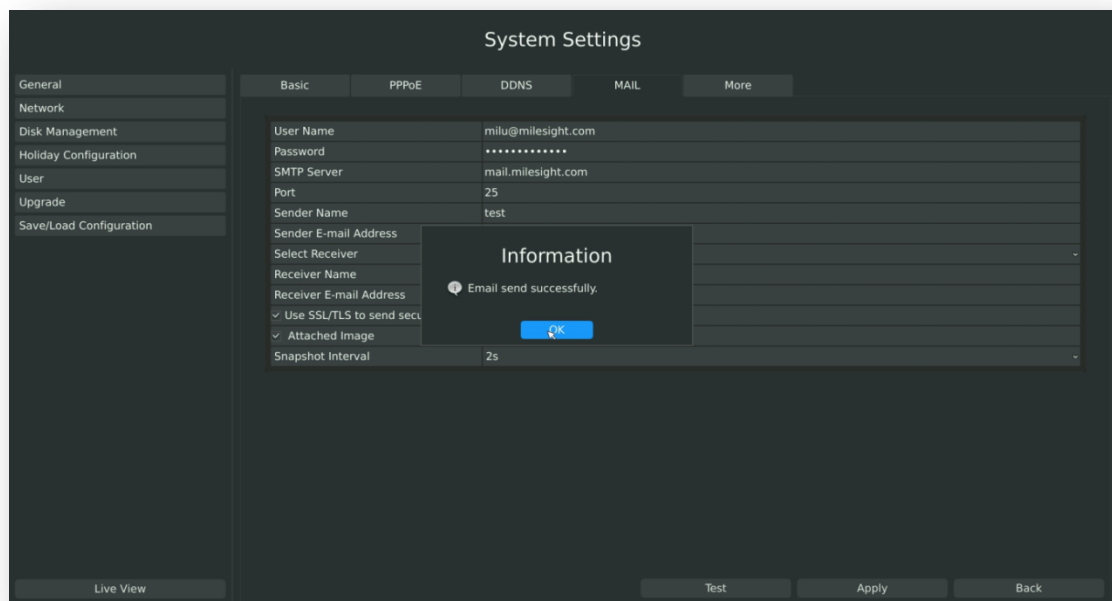
Steps: Enter Mail configuration page by clicking Main Menu→System Settings→Network→Mail

Set the Sender E-mail Address, User Name, Password, and SMTP Server.



F-3.8.5

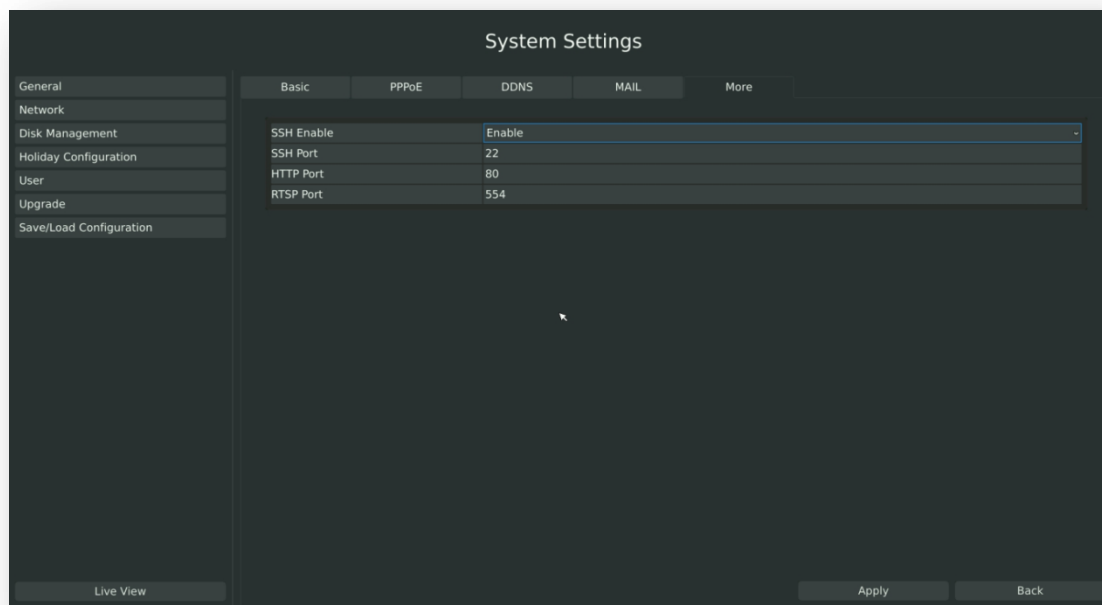
Select [Test] to check if the Mail function is workable.



F-3.8.6

3.8.2.5 More

Steps :Enter More configuration page by clicking Main Menu→System Settings→Network→More



F-3.8.7

SSH Port Setting

Secure Shell (SSH) has many functions; it can replace Telnet, and also provides a secure channel for FTP, POP, even for PPP.

1. Check the SSH Enable checkbox to enable the feature.
2. Please modify SSH ports according to actual application.

Note:The default SSH port is 22.

HTTP Port Setting

The default HTTP port is 80. Please modify HTTP ports according to actual application.

Notes:

1. The default HTTP port for IE browser is 80.
2. HTTP port is used for remote network access.

RTSP Port Setting

Real Time Streaming Protocol (RTSP) is an application layer protocol in TCP/IP protocol system. The default RTSP port is 554. Please modify RTSP port according to actual application.

Note:

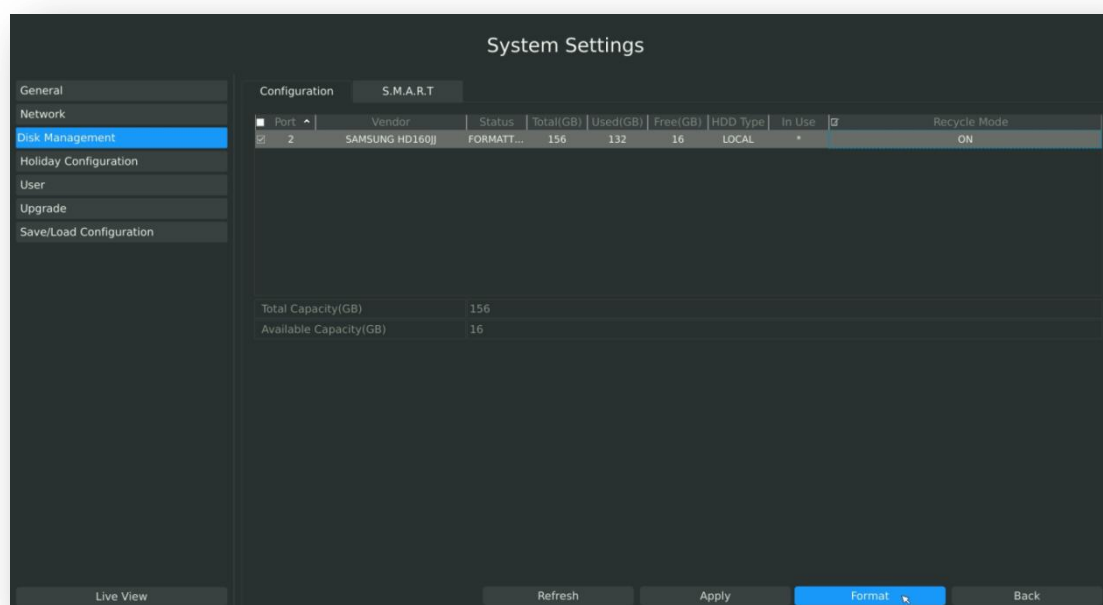
1. RTSP port is used for remote network live view.
2. RTSP port valid range is 554 or 1024~65535.

3.8.3 Disk Management

3.8.3.1 Disk Configuration

Steps: Enter disk configuration menu by clicking Main Menu→System Settings→Disk Management→Configuration

Configuration page contains the basic information of the disk, see F-3.8.8. Select a disk and click [Format] to format the disk.



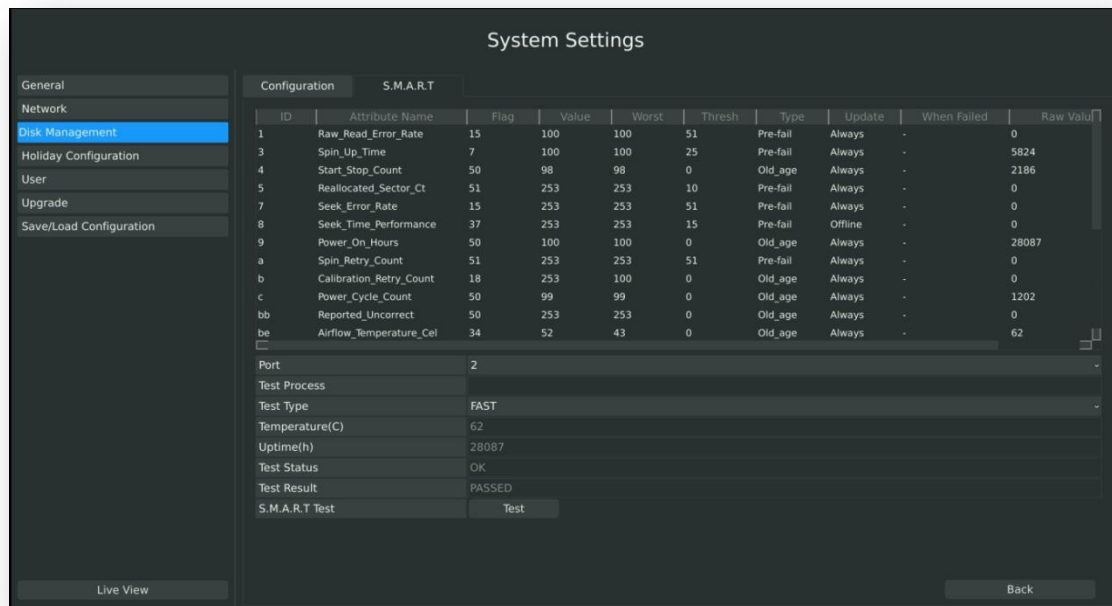
F-3.8.8

3.8.3.2 S.M.A.R.T Detection

S.M.A.R.T detection is a monitoring system of HDD that detects and reports on various indicators of anticipating failures of HDD.

Step: Enter S.M.A.R.T configure page by clicking Main Menu→System Settings→ Disk Management →S.M.A.R.T

You can command S.M.A.R.T self-checking function to check the HDD status. Select “Test type”, and click “apply” for S.M.A.R.T detection.



F-3.8.9

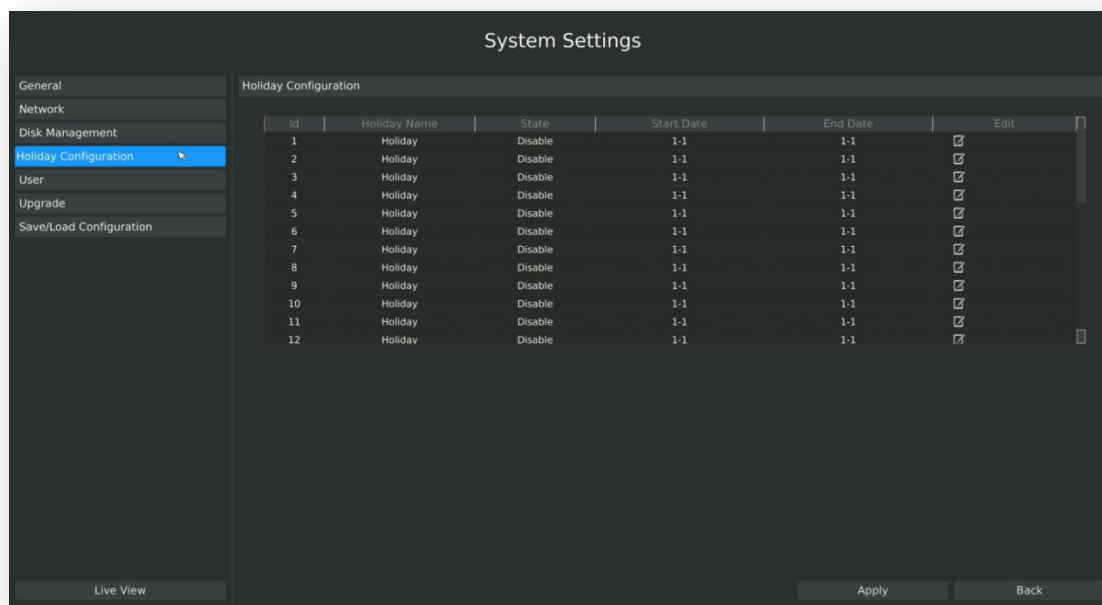
Note:

1. Test type has “fast” and “full” options.
2. Test Status can be “status good”, “status bad” and “bad tracks exist”.
3. Test result can be “passed” or “failed”.

3.8.4 Holiday Configuration


It can configure the record or image capture schedule for holidays of the current year.

Step1.Enter holiday setting menu by clicking System Setting→Holiday Configuration.

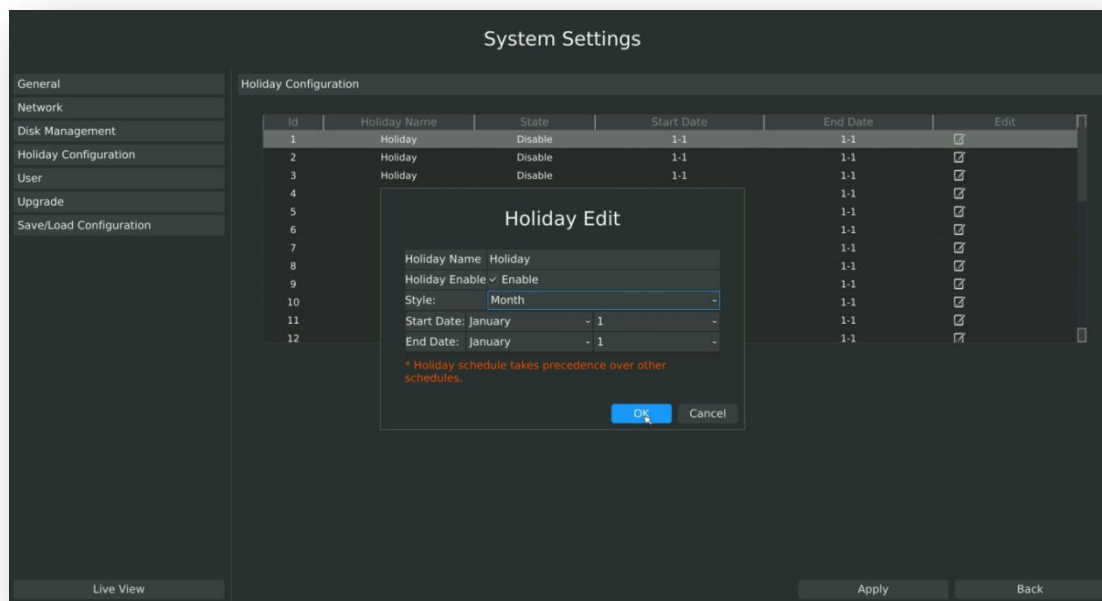


F-3.8.10

Step2.Edit the holiday schedule

Click  to open holiday configuration page to modify holiday name, check the 'Holiday Enable' checkbox, and then select [style] to setup Start/End date. Then click [OK] to save the configuration and return to holiday configuration page. Click [Apply] to confirm settings.

Note: There are Month, Week, and Date in “Style” mode.



F-3.8.11

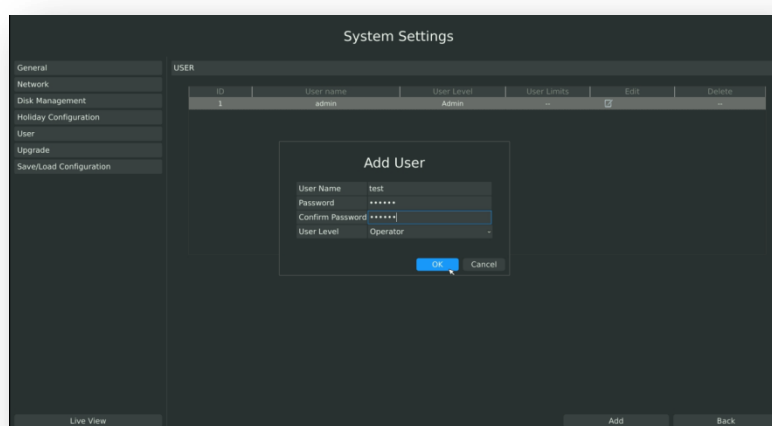
3.8.5 User Account Settings

By default, your NVR comes with the user name: “admin” and the password: “123456”. The administrator has the authority to add or delete a user account and configure parameters for the user.

Add New User

Step1:Enter user setting menu by clicking Main Menu→System Settings→User

Click [Add] to enter add user menu, input information for the new user, select user level and click [OK].



F-3.8.12

Note:

User name can be comprised of letters and figures. The user level is separated into User and Operator with different authority.

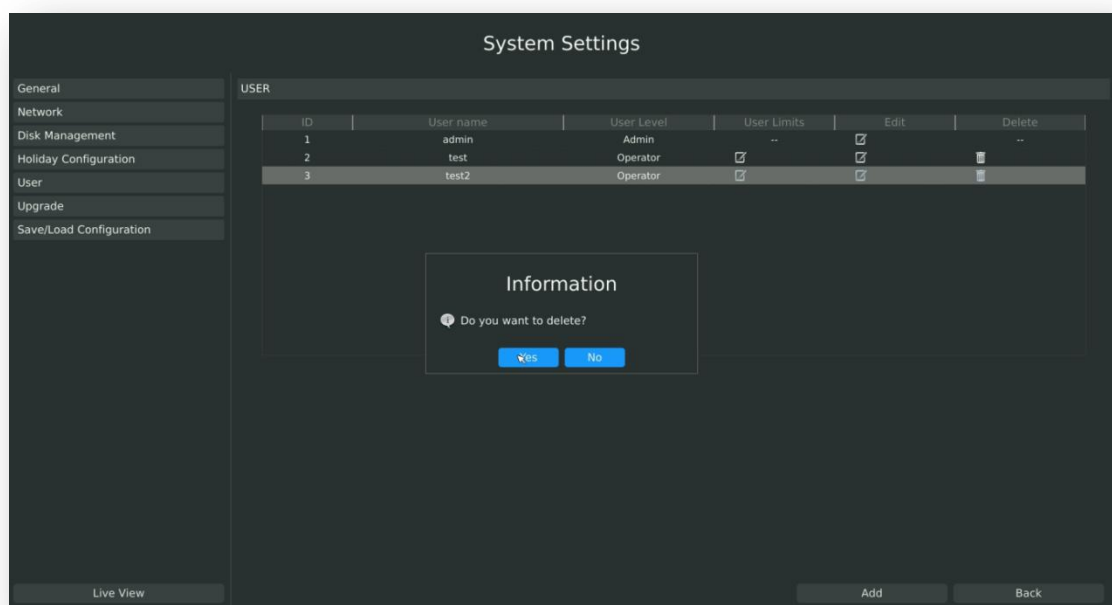
Step2: Set user privileges

Select the user that has been added and click [limit] button to enter user privilege menu.



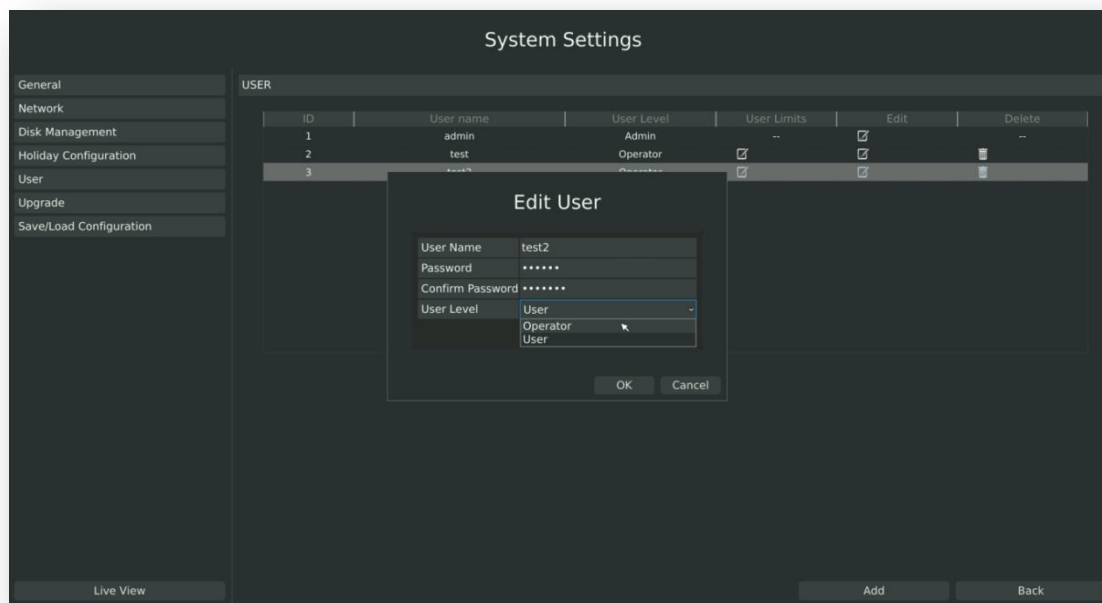
F-3.8.13

Step3. Click  to delete a user.



F-3.8.14

Step4. Click  to edit a user.

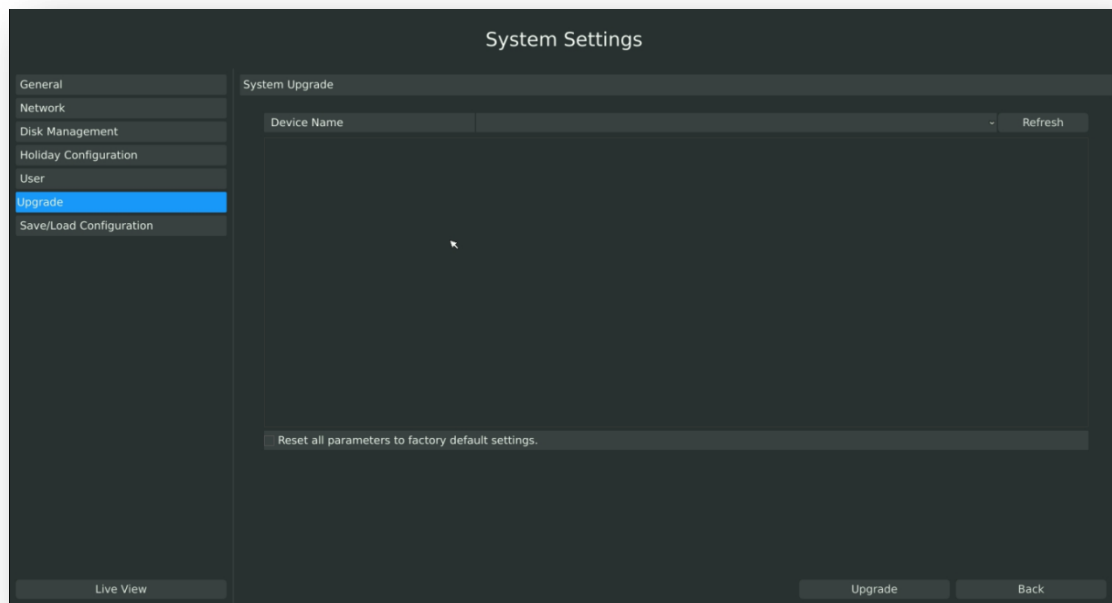


F-3.8.15

3.8.6 Upgrade

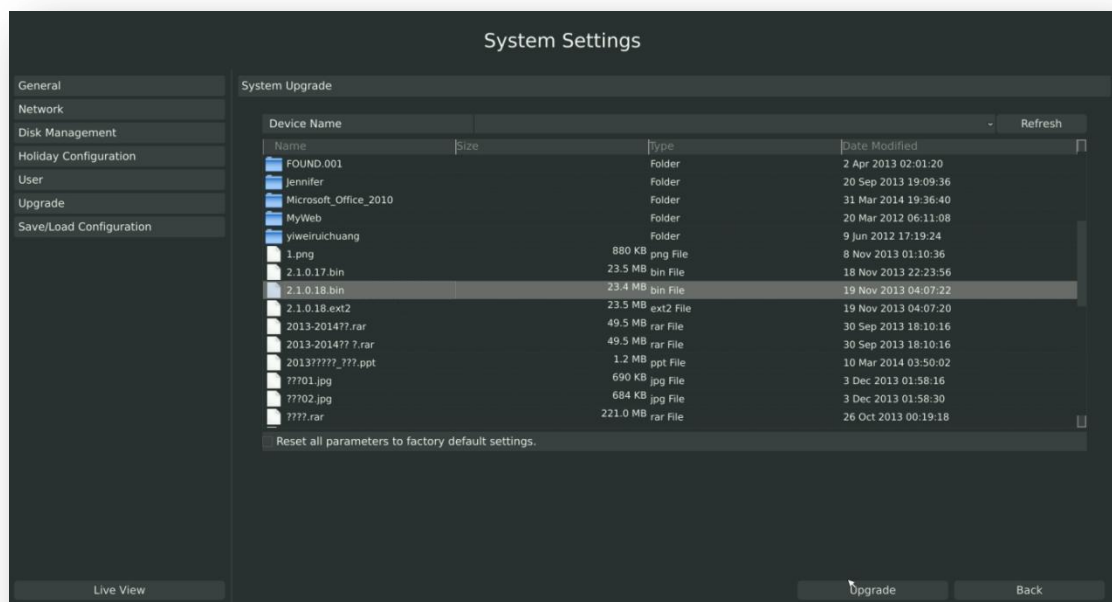
Your NVR supports firmware upgrade.

Step1. Enter upgrade menu by clicking **Main Menu**→**System Settings**→**Upgrade**



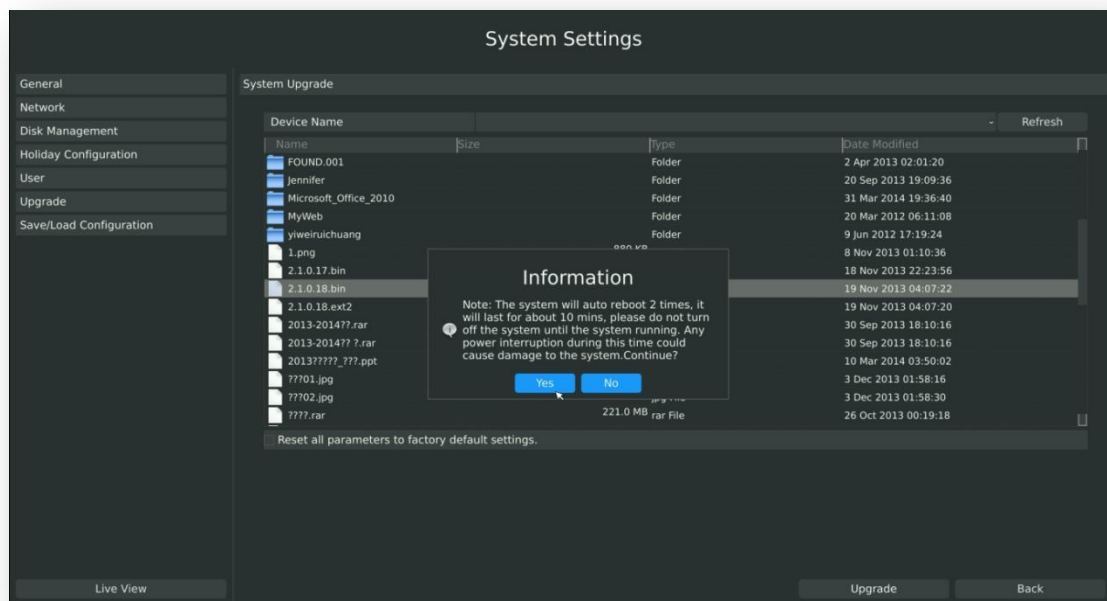
F-3.8.16

Step2. Search for device, and select the .bin file



F-3.8.17

Step3. Click [Upgrade] button to confirm the upgrade



F-3.8.18

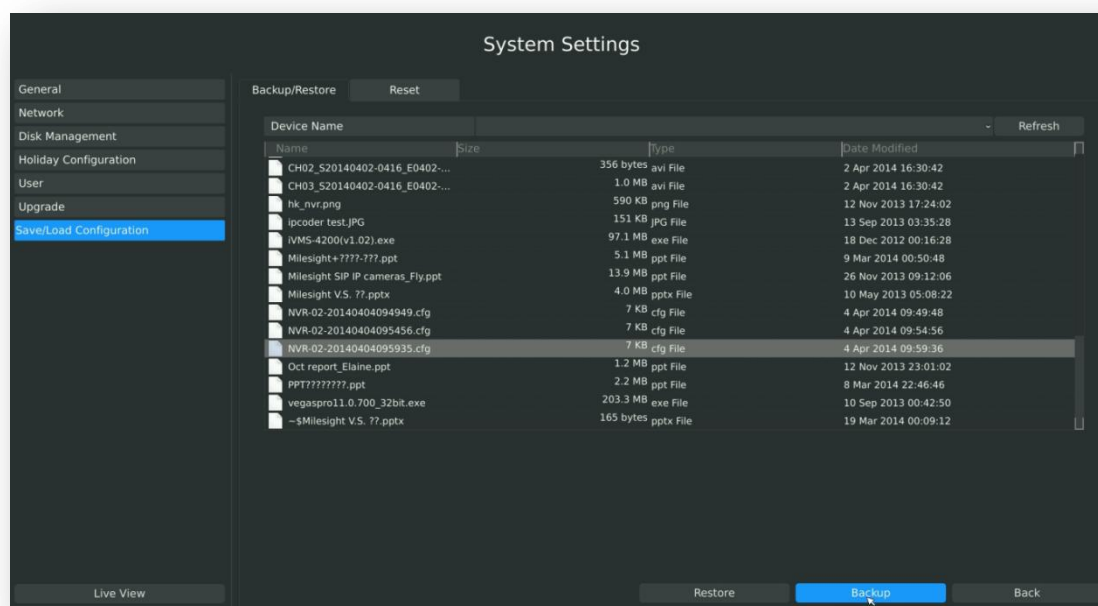
Note: The system will auto reboot after confirming upgrade.

3.8.7 Save/Load Configuration

3.8.7.1 Backup/Restore

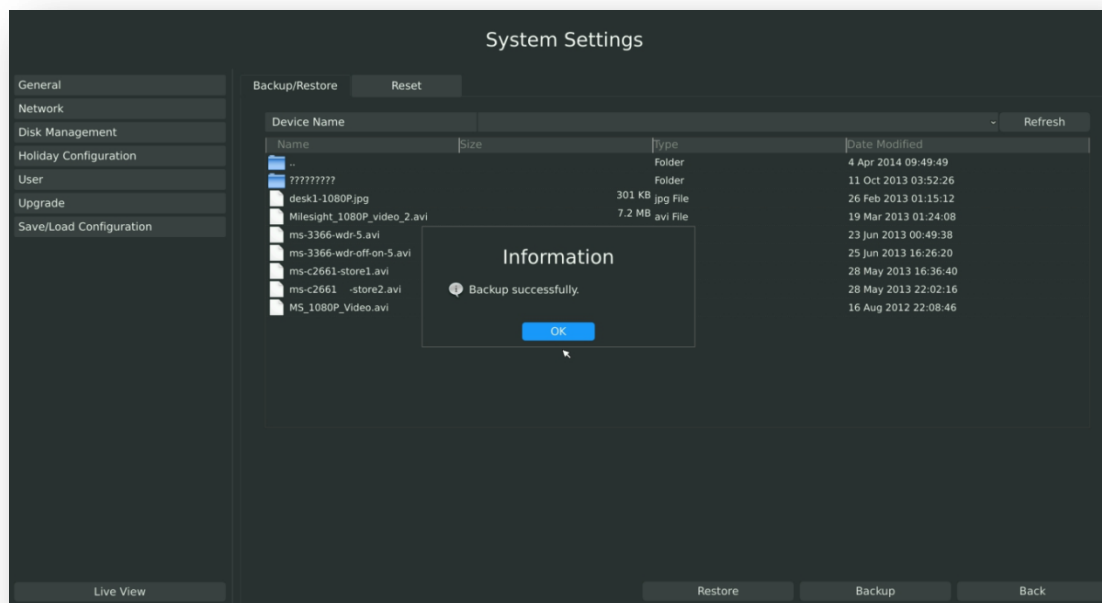
Your NVR supports backup and restore configuration.

Step1: Enter profile menu by clicking Main Menu→System→Save/Load Configuration→Backup/Restore



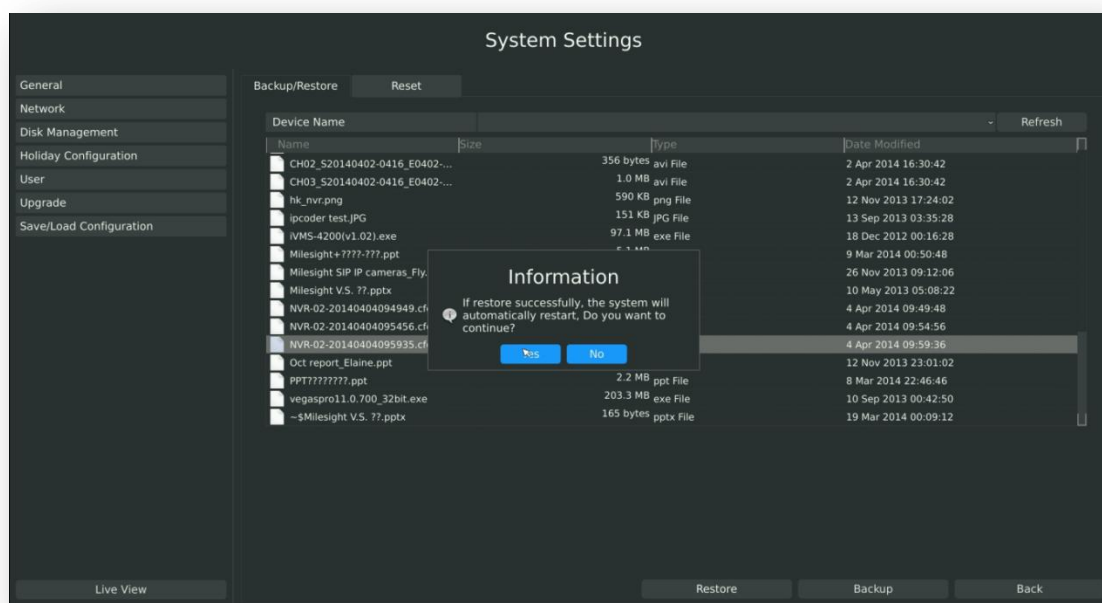
F-3.8.19

Step2. Select a folder and then click [Backup] to export configuration to USB device.



F-3.8.20

Step3. Select a cfg file and then click [Restore] to import configuration to your NVR.



F-3.8.21

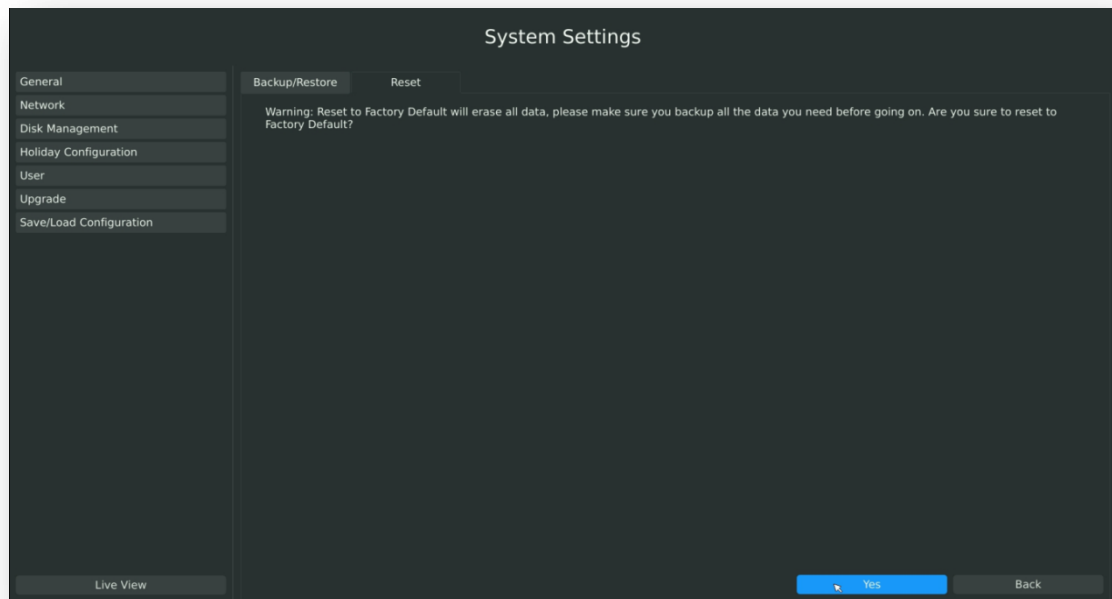
3.8.7.2 Reset

You can reset all parameters to default settings.

Enter to reset menu by clicking Main Menu→System→Save/Load Configuration→

Reset

Click “yes” to confirm reset.



F-3.8.22

3.9 Shutdown



F-3.8.23

3.9.1 Logout

Click [Logout] to exit the current logon account.

3.9.2 Reboot

Click [Reboot] to restart the NVR.

3.9.3 Shutdown

Click [Shutdown] to close the NVR.

3.9.4 Close

Click [Close] to exit.

4. Service

Milesight Technology Co., Ltd provides customers with timely and comprehensive technical support services. End-users can contact your local dealer to obtain technical support. Distributors and resellers can contact directly with Milesight for technical support.

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Web: <http://www.milesight.com>

Online Problem Submission System: <http://www.milesight.com/service/feedback.asp>

Address: No.23Wanghai Road,2nd Software Park, Xiamen,China

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FAX: +86-592-5922775

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